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An International Comparison of the Quality of Academic Publication Output in the Czech Republic

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Warning: This study represents only the views of the authors and not the official position of the Charles University in Prague, Center for Economic Research and Graduate Education as well as the Economics Institute of the Czech Academy of Sciences, v. v. i.

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Study 1 /2016

An International Comparison of the Quality of Academic Publication Output in the Czech Republic¹

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Summary

In our recent study (IDEA No. 5/20154) we have compared the publication output of various Czech research institutions by individual disciplines. The comparison was based on the relative output of institutions working in specific science branches within the Czech Republic, and had no way of indicating which institutions in the Czech Republic were on par with international research and which were lagging behind. Even though an institution is not at the top in its field within the Czech Republic, the quality of its research may still be on par with international research, as the particular branch of science is highly advanced in the Czech Republic. Therefore, this study is a first step toward comparing the research output of Czech institutions on an international level. We have compared the publication output of entire scientific fields in the Czech Republic to the same fields in other countries, basing our comparison on articles published in the years 2010–2014 and included in the Web of Science (WoS) database. The comparison includes eleven small and medium-sized countries, only one of which has English as its official language: five European countries belonging to the so-called former Soviet bloc, four Western European countries, and two non-European countries.

Unlike most similar international bibliometric comparisons, our study indicates both the overall quantity of scientific publications included in the WoS and its quality distribution. This has allowed us to compare the general status of Czech scientific fields, both as to their publication output and quality. We have also attempted to describe the dynamic development of the international status of Czech scientific fields over time.

¹ This study has been completed with the support of the Czech Academy of Sciences, as part of its Strategy AV21. The authors wish to thank Ing. J. Kovařík for his help in obtaining information from the WoS.

² Think-tank IDEA associated with the CERGE-EI, a joint academic institution of the Economics Institute of the Czech Academy of Sciences and the Center for Economic Research and Graduate Studies of Charles University.

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⁴ http://idea.cerge-ei.cz/files/IDEA Studie 5 2015 Publikacni vykonnost/IDEA Studie 5 2015 Publikacni vykonnost.html



Studie 1 /2016

Mezinárodní srovnání kvality publikačního výkonu vědních oborů v České republice⁵

ŠTĚPÁN JURAJDA²⁾, STANISLAV KOZUBEK³⁾, DANIEL MÜNICH²⁾, SAMUEL ŠKODA²⁾

Shrnutí

V nedávné studii Jurajda a Münich (2015)⁸ jsme prezentovali oborová srovnání publikační výkonnosti českých pracovišť výzkumu. Tato srovnání, která byla založena na relativní výkonnosti pracovišť v daném oboru v rámci České republiky (ČR), neměla možnost napovědět, která pracoviště v ČR jsou na mezinárodní úrovni výzkumu a která za ní zaostávají. Je například možné, že pracoviště, které není na špici daného oboru v ČR, je přesto svou kvalitou výzkumu na mezinárodní úrovni, protože se nachází v oboru, který má v ČR velmi vysokou kvalitu výzkumu. V této studii nabízíme první krok směrem k mezinárodnímu srovnání výzkumné produkce domácích pracovišť: porovnáváme publikační výkon celých vědních oborů v ČR se zahraničím. Naše srovnání jsou založena na článcích publikovaných v období 2010-2014 a obsažených v databázi Web of Science (WoS). Do srovnání jsme zahrnuli jedenáct malých a středně velkých zemí, z nichž jen v jedné je mateřským jazykem angličtina. Jde o pět evropských zemí bývalého sovětského bloku, o čtyři země západní Evropy a o dvě mimoevropské země.

Naše srovnání, na rozdíl od většiny podobných mezinárodních bibliometrických srovnání, ukazuje nejen celkovou kvantitu vědecké publikační produkce postiženou ve WoS, ale i rozložení její kvality. To umožňuje srovnat pozici vědních oborů v ČR po stránce celkového i excelentního publikačního výkonu. Ukazujeme také dynamiku mezinárodního postavení vědních oborů ČR v čase.

⁵ Tato studie vznikla díky podpoře AV ČR v rámci Strategie AV21. Autoři děkují ing. J. Kovaříkovi za spolupráci při získávání informací z WoS.

⁶ Think-tank IDEA v rámci CERGE-EI, společného akademického pracoviště Národohospodářského ústavu AV ČR, v. v. i. a Centra pro ekonomický výzkum a doktorská studia Univerzity Karlovy.

⁷ Biofyzikální ústav AV ČR, v. v. i.

⁸ http://idea.cerge-ei.cz/files/IDEA Studie 5 2015 Publikacni vykonnost/IDEA Studie 5 2015 Publikacni vykonnost.html

Basis of Comparison

Most international bibliometric comparisons are based on bibliometric indicators that are easy to calculate but often they may be misleading. A generally unsuitable, yet still widely used publication output indicator is the simple total number of articles published in all scientific fields, even though they may vary greatly as to their publication practice and frequency (i.e. the usual number of articles produced by an author per year). Such numbers are then affected by the field structure of research, which varies from country to country. Therefore, we have decided to compare publication output strictly within individual, quite narrowly defined fields⁹. This has significantly reduced (albeit not completely eliminated) the impact of differences in publication practice.¹⁰

Using the simple number of published articles, albeit within a single scientific discipline, does not reflect the potentially vast differences in the articles' quality, importance and contribution to scientific knowledge. 11 We have therefore attempted to offer comparisons based on the ability to publish first-rate research. The quality of publications is often measured by their average number of citations. A typical tool used for this purpose is the relative citation index (RCI). The RCI compares the average citation rate of articles published in the given country during a given year, in scientific journals for the given discipline, with the average citation rates of all articles published in that year and discipline worldwide. Such an indicator, however, cannot explain whether its low value stems from the lack of frequently cited works, or from an unusually high number of rarely cited articles in a given country (e.g. if the country's national journals have been included in the WoS database). The RCI value may also be affected by a mere few WoS articles that are not typical for the discipline, or by thousands of articles included in the WoS: this makes it a significant factor in R&D management. Finally, we have analyzed recently published articles (up until the year 2014), which also limits the possibility of tracking their citation impact.

Our comparison has therefore focused on a number of first-rate publications that is easy to interpret. This means that apart from the overall publication output within a given field,

⁹ We classify disciplines using the *WoS Categories* classification, distinguishing 173 fields in the Sciences group, and 55 fields in the Social Sciences group.

¹⁰ In many science fields, for example, theoretical researchers have a significantly lower publishing frequency than empirical researchers in the same field do, since empirical research focuses primarily on measurement results.

¹¹ A number of studies have proven that research published in a relatively small number of the most prestigious journals has a significantly higher typical impact than research results published in other journals. See, for example, Garfield (1996), Ioannidis (2006), Meho (2007).

we have also monitored the publication output in highly cited journals, with a generally strict review process. For each discipline, we present detailed data describing the dynamics of its output on an international level, as well as the quality of its scientific journals helping to increase its output.

Methodology

For our analysis, we have only used works published within the years 2010–2014, included in the WoS database as *Articles*. An article is credited to a certain country if at least one of the authors listed in the WoS is affiliated with an institution located in that country. This means that an article with multiple authors affiliated to different countries has been credited to each country used in our comparison which is listed at least once. If a journal publishing a certain article is listed under more than one WoS category, the article has been credited to each of the disciplines.

As a publication quality benchmark, we have used the *Article Influence Score* citation index (AIS). The AIS is derived from the article citation rate, giving greater weight to citations in prestigious journals. The AIS of a certain journal therefore correlates significantly with the journal's scientific repute, which also results in a more stringent review process. Citation indices such as the AIS are not particularly useful in measuring the importance and quality of a single publication or a select few publications (e.g. when evaluating individual scientists), since the citation rate of a specific article (i.e. its importance) may significantly differ from the average citation rate of all articles published in the given journal. However, when assessing a large number of articles, as is the case here, the quality estimate bias is much reduced.¹²

We have included each article found in one of the four quartiles of the total number of journals listed for each field and year based on their AIS value.¹³ Furthermore, we have separately analyzed the number of articles in the highest AIS value decile.

Our comparison includes 11 small and medium-sized countries, only one of which has English as its official language: 5 European countries from the former "Soviet bloc", 4 Western European countries, and 2 non-European countries. For each country in the comparison, we have normalized the total numbers of articles in each given discipline to the population of the respective country, i.e. multiplied them by the ratio of POP_{cr}/POP_i,

¹² The peer review process is another way of assessing quality of research. Compared to bibliometric indicators, it has a number of advantages when evaluating research results, but may still fall short of correctly assessing their true quality and importance.

¹³ Ranking is sorted by journal, not by articles included therein.

where POP_{cr} is the population of the Czech Republic and POP_i is the population of the country compared, so that the comparison is not affected by the varying size of the countries.¹⁴ It is also possible to normalize the figures by using Gross Domestic Product (GDP) in purchasing power parity (PPP) terms. Table 1 shows the population size and GDP volume of the compared countries in relation to the Czech Republic.¹⁵ It is clearly apparent that normalization coefficients based on population size differ significantly from those based on GDP. For instance, adjustment by population raises the actual number of publications produced in Austria, which is smaller in population than the Czech Republic, by 29 percent, whereas adjustment using GDP would lead to a figure 20 percent lower, since Austria's GDP in purchasing power parity terms is 20 percent higher than Czech Republic's.¹⁶

Table 1: Size of the Czech Republic in relation to other compared countries, based on population size and the GDP

	Adjustment coefficients				
	Population	GDP			
Austria	1.29	0.80			
Czech Republic	1.00	1.00			
Estonia	8.30	8.74			
Finland	2.06	1.42			
Hungary	1.05	1.27			
Israel	1.54	1.16			
The Netherlands	0.63	0.39			
New Zealand	2.51	1.95			
Poland	0.26	0.33			
Slovakia	1.82	2.03			
Slovenia	5.12	5.15			
Sweden	1.21	0.70			

Source: Authors' calculations, using data published by the OECD (2014 and 2015)

Overview by Discipline

We have based our comparison on Discipline Sheets included in this study's Attachment. We will explain the structure of the Discipline Sheets and the data included therein using the categories *Chemistry*, *Analytical* and *Agricultural Economics and Policy* as examples.

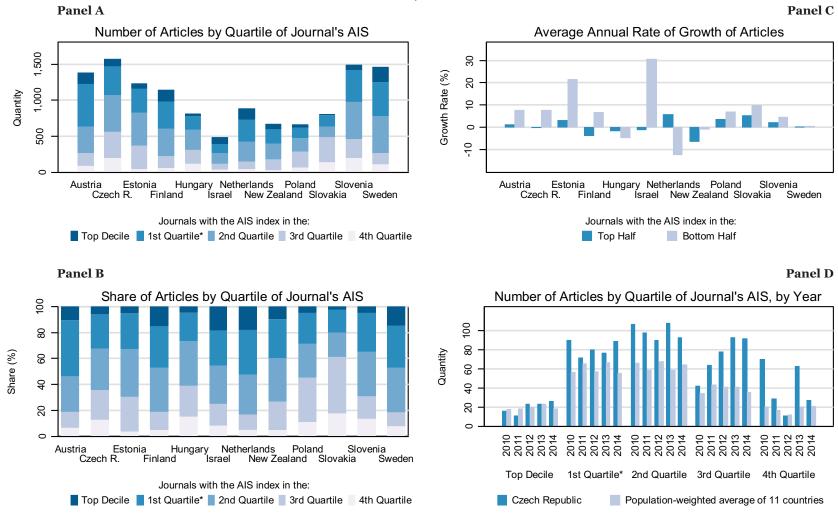
¹⁴ POP is equivalent to population aged 15–65 in the year 2014.

¹⁵ GDP in 2014, shown in US dollars; constant prices, constant PPP; reference year 2010.

¹⁶ Ideally, it would be better to normalize the data for each discipline in relation to an internationally comparable volume of expenditures allocated to research in the given discipline, or to the number of scientists working in that field. However, not only are such internationally comparable data unavailable, but it would be impossible to determine the relation of specific persons and expenditures to a given discipline with any considerable precision.

Chart 1a

CHEMISTRY, ANALYTICAL



Notes

* 1st Quartile excludes the Top Decile

Chart 1a, panel A (top left) uses bar charts to indicate the number of articles per country, normalized for the population of the Czech Republic, in each quartile and in the top decile based on the AIS. The top decile includes articles published in the 10 percent most prestigious scientific journals in the given field. Articles included in the top decile have not been included in the first quartile shown, so that the total chart size for each given country corresponds to the total number of articles.

In the years 2010–2014, the Czech Republic's publication output in the *Chemistry*, *Analytical* field was the highest of the 12 countries included in our comparison, followed by Slovenia and Sweden. However, normalization of the publication output by GDP (see Table 1) puts the Czech Republic even further ahead of Sweden, whereas comparison to Slovenia remains almost unchanged, since the normalization coefficients for both population and GDP are nearly identical. Using normalization by GDP, the Czech Republic comes close to the advanced Western countries included in our comparison as to the number of articles published in journals with the highest AIS.

Panel B (bottom left) shows the same numbers as Panel A, but expressed as the percentage of the total number of articles per country. This gives a clearer indication of the level of contribution by publications in each quartile of the AIS to the total publication output. For instance, it is apparent that the Czech Republic's overall high publication output in Analytical Chemistry compared to Sweden, Finland and Austria is caused by a higher proportion of articles in the lower two quartiles, similarly as in other post-Communist countries in our comparison.

Panel C (top right) indicates the average year-on-year increase¹⁷ in the normalized number of articles in the years 2010–2014, shown separately for articles from the lower and upper half of journals for the given discipline based on the AIS (quartile 1 & 2 and quartile 3 & 4 respectively; quartile 1 also includes the 1st decile). It is apparent that in most countries, the total number of articles in the upper half of journals has grown by a mere few percent a year, apart from Poland, where the increase has been significantly higher (however, Poland's starting point was very low). In the lower half, on the other hand, there has been a significant increase in the number of articles for several countries: Austria, Estonia,

¹⁷ The average year-on-year growth has been calculated as an average of year-on-year growths in the period between 2010 and 2014.

Poland, and the Czech Republic.¹⁸ In some disciplines, no growth is shown if the number of results has been too low, or even zero in some of the years between 2010 and 2014.

Finally, panel D (bottom right) compares the Czech Republic's publication output in each quartile and the top decile with the average output of the other compared countries during each year.¹⁹ In all countries, including the Czech Republic, publication output above the median AIS has been fairly stable. However, the Czech Republic has shown significant increase in the 3rd quartile.

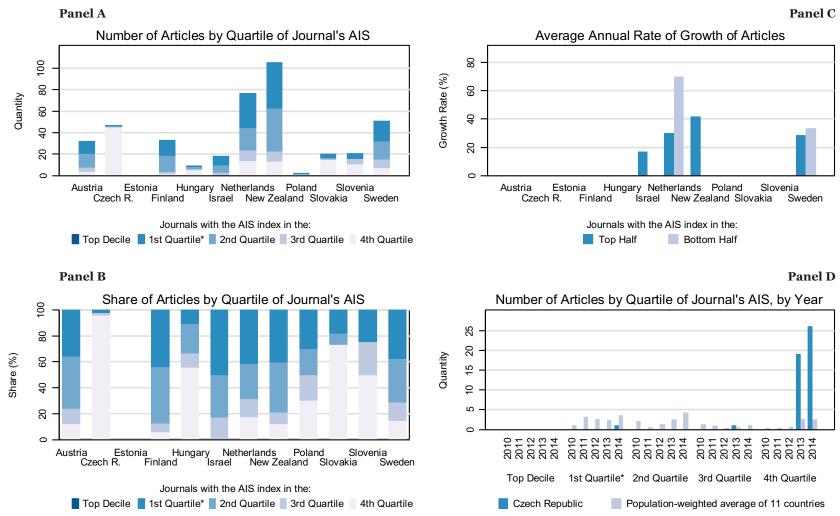
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¹⁸ Our analysis does not distinguish between the contribution caused by an increase in the number of journals newly registered in the WoS database in the years 2010–2014, and by an increase in the number of articles published in already registered journals. The WoS database is usually expanded by less prestigious journals (i.e. the lower segment). However, adding new journals into the WoS database shifts the limits of the quartiles and decile based on the AIS.

¹⁹ Average figures in the compared countries have been calculated from the number of articles normalized for the population of the Czech Republic, meaning that the contribution of countries with larger populations is equal to that of smaller countries.

Chart 1b

AGRICULTURAL ECONOMICS & POLICY



*1st Quartile excludes the Top Decile

Als (Article Influence Score) measures the relative importance of the journal, it uses citation data from Thomson Reuters (ISI Web of Knowledge).

Als (Article Influence Score) measures the relative importance of the journal, it uses citation data from Thomson Reuters (ISI Web of Knowledge). Data covers the period of 2010-2014, publication counts for each country are normalized to correspond to the population size of the Czech Republic The situation and development in the *Chemistry, Analytical* field is in sharp contrast to the situation in a much smaller discipline, *Agricultural Economics & Policy* (shown in Chart 1b). Panel A indicates a significantly lower publication output in the post-Communist countries, with the exception of the Czech Republic, whose publication output is the fourth highest. Panel B shows that this stems from the extremely high proportion of articles in the 4th quartile, i.e. in journals with the lowest AIS, primarily in the journal *Zemědělská ekonomika (Agricultural Economics)*. ²⁰ For a number of countries, panel C shows zero growth due to a very low or zero starting point. Panel D illustrates the abnormal nature of the situation in the Czech Republic, where publication output in the lowest quartile is almost ten times higher than the average publication output in the other countries. Similar comparisons for other fields included in the WoS can be found in the Discipline Sheets.

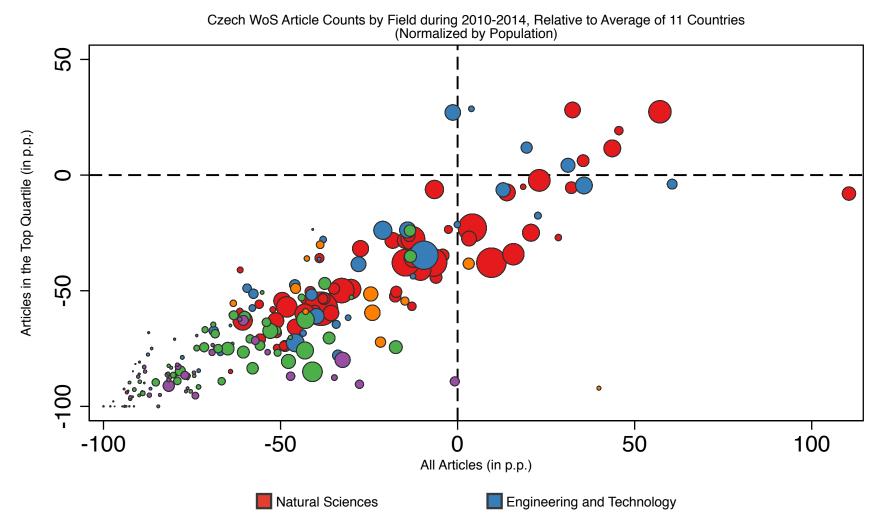
Overview of All Scientific Fields

Chart 2a shows the publication output of all scientific fields in the Czech Republic. The WoS output for each discipline is shown in Chart 2a as the percentage deviation of the given indicator in the Czech Republic from the average indicator in the other compared countries. The horizontal axis then plots the overall publication output (i.e. number of articles) of scientific fields in the Czech Republic compared to the average publication output in said fields in the other countries.²¹ The vertical axis shows the publication output in outstanding journals within the 1st quartile. The size of various disciplines in the chart determines each discipline's share in the Czech Republic's overall publication output (without distinguishing between quartiles based on the journals' AIS). The overall publication output is therefore the result of a combination of factors: the number of researchers working in the given field (in the Czech Republic and worldwide), standard publication frequency per researcher / year in the given field (frequency may vary greatly between disciplines), and possibly also different publication frequencies of Czech researchers in the given field, compared to their colleagues abroad.

²⁰ Out of all articles published in the WoS in 2014, articles published in the *Zemědělská ekonomika* journal were cited in a total of 54 articles also published in *Zemědělská ekonomika*; 21 articles citing this journal were published in the journal *Moravian Geographical Reports*, 10 articles in *Listy cukrovarnické a řepařské* (*Journal of Sugar and Beet Growing Industry*), and 10 articles in local economic journals.

²¹ Average publication output has been calculated using the individual figures for each of the 11 countries under comparison.

Chart 2a



Note: The graph shows for each WoS field of science the total count of journal articles published with at least one Czech co-author during 2010-2014 relative to the corresponding count for an average of 11 countries whose journal counts were first normalized to Czech population size. On the horizontal axis, the percentage point difference relative to this 11-country average is shown for all journal articles. On the vertical axis, the difference is shown only for articles published in the top quartile of the field-specific Article Influence Score. The size of each field of science relates to its share of the Czech WoS journal production during 2010-2014.

Social Sciences

Medical and Health Sciences

Agricultural Sciences

In Chart 2a, the colors of individual discipline symbols identify the wider group the discipline belongs to in the WoS. The Czech Republic has the weakest position in the *Social Sciences* group (purple symbols), both in overall and outstanding publication output. All social science fields in the Czech Republic show low overall publication output and an extremely low outstanding publication output, and can therefore be found at the very bottom left of the chart. Similarly as in the aforementioned *Agricultural Economics & Policy* field, social science fields (such as *Political Science*) tend to have a large percentage of articles in WoS journals published in the Czech Republic, which often publish predominantly Czech authors, a large proportion of articles written in Czech or Slovak, and a great degree of self-citation. We will discuss this issue later in more detail.

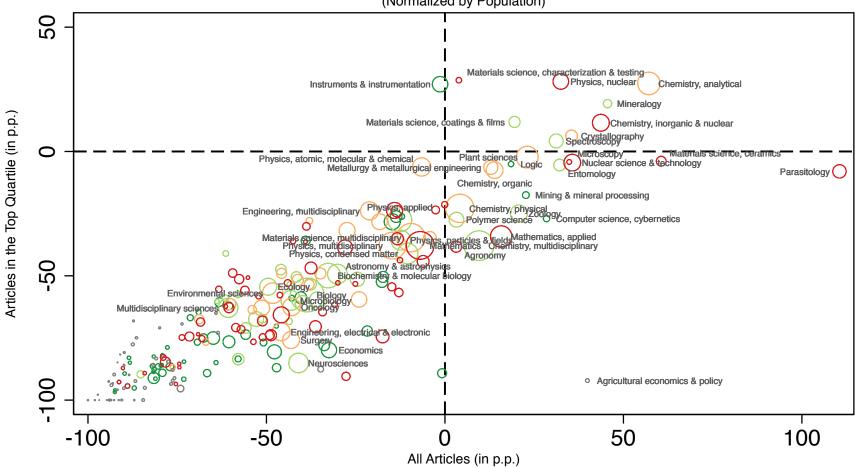
In contrast, the Czech Republic has the best position in discipline groups *Natural Sciences* and *Engineering & Technology* (red and blue symbols). Chart 2a reveals that there is a roughly linear relationship between the overall and outstanding publishing output in various fields. However, most fields show a larger overall output compared to internationally compared output published in prestigious journals.

Chart 2b shows the position of specific noteworthy scientific fields. Circle colors indicate deviations in the rate of increase of the number of articles in each field in the Czech Republic, compared to the average rate of increase in all the other countries.²² Such a comparison allows us to determine whether fields with a relatively poor output compared to the international average (half of which corresponds to other EU countries from the former Soviet bloc) have been improving their position over time, or have been growing faster than the average growth rate in all the compared countries.

²² Dark green and light green indicate a significantly and slightly above-average growth respectively; red and yellow indicate significantly and slightly below-average respectively. Fields where the starting point is too low to determine a reliable growth rate (the total number of articles in the years 2010–2014 was less than 50) are marked in gray.



Czech WoS Article Counts by Field during 2010-2014, Relative to Average of 11 Countries (Normalized by Population)



Difference in Growth Rates between the Czech Republic and Avg.:

$$^{\circ}$$
 >4 p.p. $^{\circ}$ >0, <4 p.p. $^{\circ}$ <0, >-4 p.p. $^{\circ}$ <-4 p.p. $^{\circ}$ NA

There are only a few disciplines where the Czech publication output exceeds the average publication output in the other selected countries: *Chemistry, analytical; Chemistry, inorganic & nuclear; Physics, nuclear*²³; *Spectroscopy, Crystallography; Material science, coatings & films; Mineralogy; Instruments & Instrumentation; Material science, characterization and testing.* All of these disciplines also show an exceptionally high publication output. Especially worth mentioning are the last two disciplines, which show an exceptionally high and outstanding publication output not accompanied by an exceptionally high output in less prestigious journals.

The field of *Parasitology* stands out significantly among all other disciplines, due to its exceptionally high publication output in less prestigious journals, and a roughly average output in prestigious journals. The aforementioned field of *Agricultural Economics & Policy* is also an exception, albeit in a different way: its overall output in the Czech Republic is abnormally high, thanks to high publication output in national journals with a low AIS (see discussion in previous section).

The standing of most WoS disciplines may be found in Charts 3a-e, divided into the following groups: *Agricultural Sciences*, *Engineering & Technology, Medical Sciences*, *Natural Sciences* and *Social Sciences*. For better clarity, the charts only show the segment of Chart 2a which includes Czech disciplines within a given category. As we have pointed out earlier, using the example of the *Agricultural Economics & Policy* field, the position of certain disciplines in international comparison may be influenced by the inclusion of national (Czech and Slovak) WoS journals, usually in the lowest, 4th quartile. Such journals tend to publish articles of authors affiliated with Czech institutions, with low international citation rates. Readers interested in the importance of such journals for international science field comparison may find the list of all such journals in Table A1 attached to this paper. WoS classifies 14 of them under *Social Sciences* (6 in economic disciplines), and about 60 of them under *Sciences*. As shown in the table, the overwhelming majority of these journals belong to the lowest quartile based on their AIS, and show a fairly high self-

²³ Physics, nuclear is a highly specific field, due to its practice of publishing articles written by huge teams of many authors, where the participation of scientists from a certain country may not reflect that country's actual scientific contribution. Large teams of authors are also frequent in the fields of Astronomy & Astrophysics and Physics, Particles & Fields, where collective authorship may distort the results: such publications can be credited to many countries, and usually fall into the 1st quartile. The overall output therefore depends on the ratio of standard results and those by such huge authorial teams – negligible on the international scale, but some Czech research teams produce almost exclusively such publications.

citation rate.²⁴ Such journals therefore increase the overall Czech publication output, but it is not clear whether they actually contribute to universal scientific knowledge.

The WoS data have also allowed us to summarize the differences in research field structure in the countries under comparison on the discipline group level. Table 2 shows the shares of various discipline groups in overall publication output in the Czech Republic and other compared countries. It is apparent that compared internationally, Czech social and medical sciences have an unusually low share in the overall publication output, and especially in the outstanding publication output.²⁵ In contrast, the natural sciences group in the Czech Republic shows an exceptionally high share in both aspects. The share of technical and agricultural science groups in the Czech Republic is on a par with the standard international level.

Table 2: Percentages of the total number of articles and articles in the 1st quartile in various scientific field groups

Scientific field group	All art	icles	Articles in the 1 st quartile		
Scientific field group	Czech Rep.	Others	Czech Rep.	Others	
Agricultural Sciences	4%	3%	4%	3%	
Engineering and Technology	17%	15%	18%	15%	
Medical and Health Sciences	15%	24%	13%	23%	
Natural Sciences	59%	48%	63%	52%	
Social Sciences	5%	10%	2%	7%	
Total	100%	100%	100%	100%	

Source: Authors' calculations based on WoS data

Final Notes

Effective management of the R&D system on all levels requires a solid awareness of the focus, productivity and output of all scientific fields and disciplines. Insufficiently

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²⁴ Journals with an extreme degree of self-citations include, for instance, Československá psychologie (Czechoslovak Psychology), Listy cukrovarnické a řepařské (Journal of Sugar and Beet Growing Industry) and Česká a slovenská neurologie a neurochirurgie (Czech and Slovak Journal of Neurology and Neurosurgery). Journals with very low self-citation rates include, for example, European Journal of Entomology and Folia Geobotanica.

²⁵ The low share of social sciences in the Czech scientific output is in contrast with the fact that the rate of social science graduates in the Czech Republic is on a par with standard international rates.

informed decisions hamper effective utilization of public finances, both by the Research, Development and Innovation Council and by university managements. In this comparative study, we have attempted to present the approximate research output of various scientific disciplines in the Czech Republic, comparing the indicators of overall and outstanding publication output. Low publication output in many fields may be caused by a number of factors:

- (i) Low financial support, insufficient human resources and infrastructure;
- (ii) Ineffective utilization of resources (low research and publication output);
- (iii) Research focused on other than core prestigious publications, and therefore other forms of output than articles in journals included in the WoS database (e.g., greater focus on unpublished applied results).

Identifying the precise role of various factors is beyond the possibility of bibliometric indicators. In any case, it would be wrong to attribute the differences in absolute values and publication output trends observed to any single factor without having specific information about the utilization of resources and focus of research.

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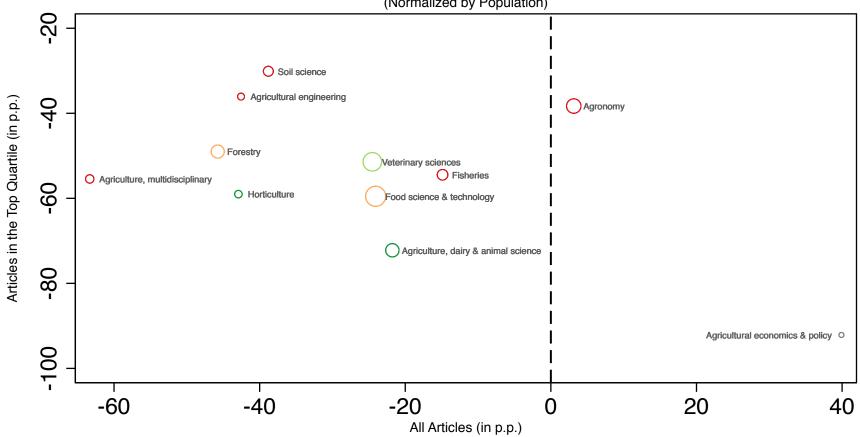
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AGRICULTURAL SCIENCES

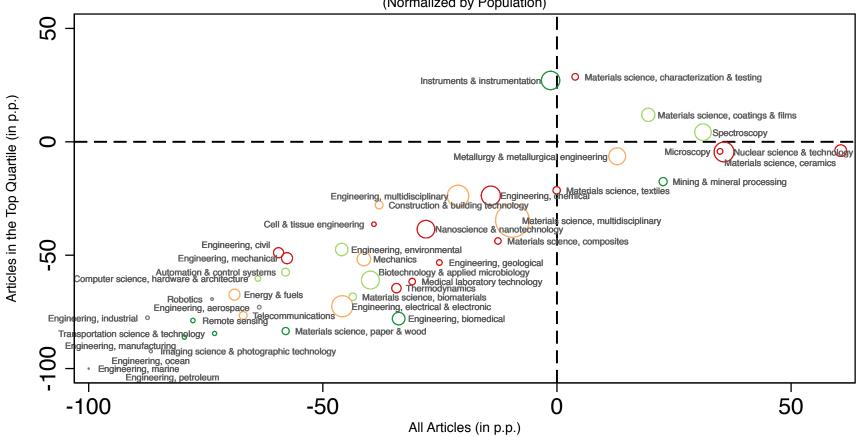
Czech WoS Article Counts by Field during 2010-2014, Relative to Average of 11 Countries (Normalized by Population)



Difference in Growth Rates between the Czech Republic and Avg.:

ENGINEERING AND TECHNOLOGY

Czech WoS Article Counts by Field during 2010-2014, Relative to Average of 11 Countries (Normalized by Population)

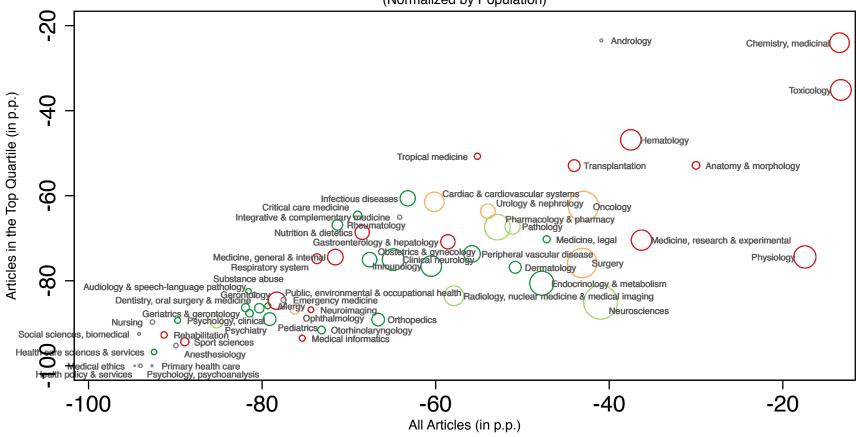


Difference in Growth Rates between the Czech Republic and Avg.:

° >4 p.p. ° >0, <4 p.p. ° <0, >-4 p.p. ° <-4 p.p. ° NA

MEDICAL AND HEALTH SCIENCES

Czech WoS Article Counts by Field during 2010-2014, Relative to Average of 11 Countries (Normalized by Population)

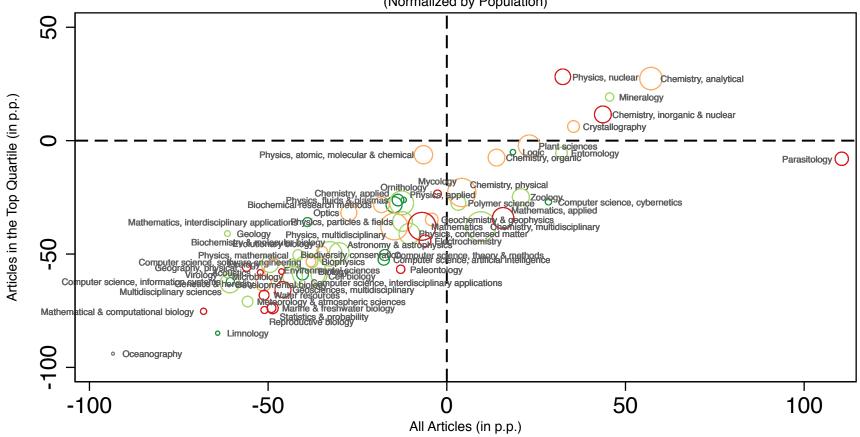


Difference in Growth Rates between the Czech Republic and Avg.:

° >4 p.p. ° >0, <4 p.p. ° <0, >-4 p.p. ° <-4 p.p. ° NA

NATURAL SCIENCES

Czech WoS Article Counts by Field during 2010-2014, Relative to Average of 11 Countries (Normalized by Population)

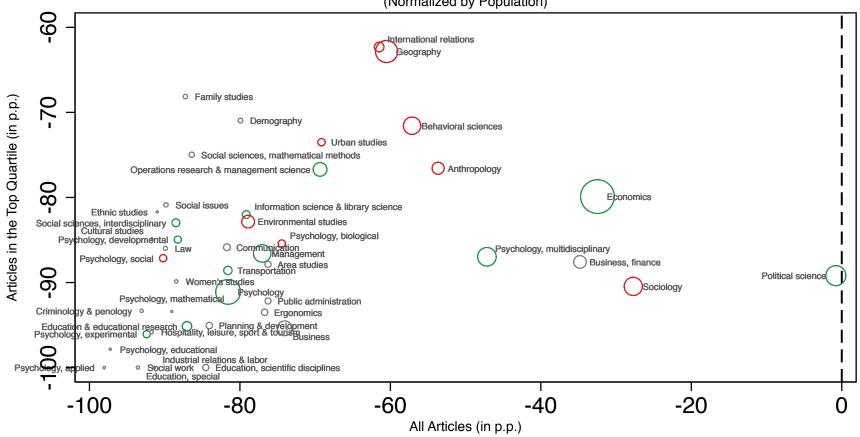


Difference in Growth Rates between the Czech Republic and Avg.:

$$^{\circ}$$
 >4 p.p. $^{\circ}$ >0, <4 p.p. $^{\circ}$ <0, >-4 p.p. $^{\circ}$ <-4 p.p. $^{\circ}$ NA

SOCIAL SCIENCES

Czech WoS Article Counts by Field during 2010-2014, Relative to Average of 11 Countries (Normalized by Population)



Difference in Growth Rates between the Czech Republic and Avg.:

$$^{\circ}$$
 >4 p.p. $^{\circ}$ >0, <4 p.p. $^{\circ}$ <0, >-4 p.p. $^{\circ}$ <-4 p.p. $^{\circ}$ NA

Table A1: List of journals published in the Czech Republic (ČR) and Slovakia (SR) included in the WoS database.

Social Sciences

Journal	Discipline (WoS Category)	ČR/SR	Number of Articles in 2014*	IF Quartile (incl. journal's self- citations)	AIS Quartile (incl. journal's self- citations)	Self-citations (%)**
Finance a uver	Business, Finance	ČR	24	Q4	Q4	33
Zemedelska Ekonomika	Economics	ČR	55	Q4	Q4	34
E & M Ekonomie a Management	Economics	ČR	51	Q2	Q4	26
	Management			Q3		
Politicka ekonomie	Economics Political Science	ČR	42	Q3 Q3	Q4	42
Prague Economic Papers	Economics	ČR	27	Q3	Q4	3
Ekonomicky casopis	Economics	SR	55	Q4	Q4	32
Geografie	Geography	ČR	21	Q4	Q4	37
Moravian Geographical Reports	Geography	ČR	23	Q3	NA	17
Slovo a Slovesnost	Linguistics	ČR	14	Q3	NA	75
Ceskoslovenska psychologie	Psychology, Multidisciplinary	ČR	44	Q4	Q4	63
Studia Psychologica	Psychology, Multidisciplinary	SR	24	Q4	Q4	34
Central European Journal of Public Health	Public, Environmental & Occupational Health	ČR	58	Q4	NA	10
Sociologicky casopis	Sociology	ČR	28	Q3	Q4	44
Sociologia	Sociology	SR	28	Q4	Q4	30

^{*} Number of articles in 2014 with a Czech affiliation

^{**} Share of self-citations in the period 2012-2013, which is used in calculating of the IF in 2014

Natural Sciences 1/3

Journal	Discipline (WoS Category)	ČR/SR	Number of articles in 2014*	IF Quartile (incl. journal´s self- citations)	AIS Quartile (incl. journal's self- citations)	Self-citations (%)**
Agricultural Economics-Zemedelska Ekonomika	Agricultural Economics & Policy	ČR	55	Q4	Q4	34
Czech Journal of Animal Science	Agriculture, Dairy & Animal Science	ČR	66	Q2	Q3	25
Czech Journal of Genetics and Plant Breeding	Agronomy Plant Sciences	ČR	40	Q4 Q4	NA	6
Plant Protection Science	Agronomy Plant Sciences	ČR	31	Q3 Q4	NA	16
Plant Soil and Evironment	Agronomy	ČR	92	Q2	NA	18
Contributions of the Astronomical Observatory Skalnate Pleso	Astronomy & Astrophysics	SR	97	Q4	Q4	61
General Physiology and Biophysics	Biochemistry & Molecular Biology Physiology	SR	45	Q4 Q4	Q4	4
Biologia	Biology	SR	205	Q4	Q4	11
Folia Biologica	Biology Oncology	ČR	51	Q3 Q4	Q3/4	5
Folia Microbiologica	Biotechnology & Applied Microbiology Microbiology	ČR	74	Q4 Q4	Q4	2
Chemical Papers	Chemistry, Multidisciplinary	SR	207	Q3	Q3	16
Chemicke listy	Chemistry, Multidisciplinary	ČR	162	Q4	Q4	30
Computing and Informatics	Computer Science, Artificial Intelligence	SR	64	Q4	Q4	24
Neural Network World	Computer Science, Artificial Intelligence	ČR	37	Q4	Q4	23
Kybernetika	Computer Science, Cybernetics	ČR	60	Q4	Q4	21
Journal of Electrical Engineering-Elektrotechnicky Casopis	Engineering, Electrical & Electronic	SR	63	Q4	Q4	20
Radioengineering	Engineering, Electrical & Electronic	ČR	146	Q3	Q4	25
Acta Entomologica Musei Nationalis Pragae	Entomology	ČR	69	Q3	NA	29
European Journal of Entomology	Entomology	ČR	71	Q3	Q2	4
Taxon	Evolutionary Biology Plant Sciences	SR	93	Q2 Q1	Q2	11
Journal of Food and Nutrition Research	Food Science & Technology	SR	39	Q3	Q3	20
Czech Journal of Food Sciences	Food Science & Technology	ČR	84	Q3	Q3	21
Listy cukrovarnicke a reparske	Food Science & Technology	ČR	62	Q4	Q4	63

Natural Sciences 2/3

Journal	Discipline (WoS Category)	ČR/SR	Number of Articles in 2014*	IF Quartile (incl. journal's self- citations)	AIS Quartile (incl. journal's self- citations)	Self-citations (%)**
Acta Geodynamica et Geomaterialia	Geochemistry & Geophysics Mining & Mineral Processing	ČR	34	Q4 Q4	Q3/4	27
Studia Geophysica et Geodeatica	Geochemistry & Geophysics	ČR	35	Q3	Q4	13
Acta Montanistica Slovaca	Geosciences, Multidisciplinary Mining & Mineral Processing	SR	27	Q4 Q4	Q4	55
Geologica Carpathica	Geosciences, Multidisciplinary	SR	32	Q4	Q4	24
Bulletin of Geosciences	Geosciences, Multidisciplinary Paleontology	ČR	40	Q3 Q2	NA	14
Journal of Geosciences	Geosciences, Multidisciplinary	ČR	25	Q3	NA	7
Horticultural Science	Horticulture	ČR	26	Q3	NA	8
Measurement Science Review	Instruments & Instrumentation	SR	49	Q3	Q4	26
Ceramics - Silikaty	Materials Science, Ceramics	ČR	25	Q3	Q3	4
Kovove materialy - Metallic Materials	Materials Science, Multidisciplinary Metallurgy & Metallurgical Engineering	SR	53	Q4 Q4	Q3/4	11
Wood Research	Materials Science, Paper & Wood	SR	65	Q4	Q4	23
Mathematica Slovaca	Mathematics	SR	109	Q4	Q4	17
Czechoslovak Mathematical Journal	Mathematics	ČR	80	Q4	Q4	15
Applications of Mathematics	Mathematics, Applied	ČR	42	Q4	Q4	0
Bratislava Medical Journal-Bratislavske Lekarske Listy	Medicine, General & Internal	SR	147	Q4	NA	13
Biomedical Paper - Olomouc	Medicine, Research & Experimental	ČR	103	Q4	Q4	3
Epidemiologie mikrobiologie imunologie	Microbiology	ČR	26	Q4	NA	50
Ceska a slovenska neurologie a neurochirurgie	Neurosciences Surgery	ČR	106	Q4 Q4	Q4	73
Neoplasma	Oncology	SR	90	Q4	Q4	2
Acta Chirurgiae Orthopaedicae et Traumatologiae Cechoslovaca	Orthopedics	ČR	48	Q4	Q4	32
Helminthologia	Parasitology Zoology	SR	51	Q4 Q4	Q4	37
Folia Parasitologica	Parasitology	ČR	67	Q3	Q3	19
Journal of Applied Biomedicine	Pharmacology & Pharmacy	ČR	34	Q3	NA	23
Acta Physica Slovaca	Physics, Multidisciplinary Biophysics	SR	2	Q3 Q4	Q1	O

Natural Sciences 3/3

Journal	Discipline (WoS Category)	ČR/SR	Number of Articles in 2014*	IF Quartile (incl. journal's self- citations)	AIS Quartile (incl. journal's self- citations)	Self-citations (%)**
Biologia Plantarum	Plant Sciences	ČR	101	Q2	Q3	32
Folia Geobotanica	Plant Sciences	ČR	31	Q2	Q2	4
Fottea	Plant Sciences	ČR	19	Q2	NA	13
Photosyntetica	Plant Sciences	ČR	70	Q2	Q3	12
Preslia	Plant Sciences	ČR	21	Q1	Q2	29
Central European Journal of Public Health	Public, Environmental & Occupational Health	ČR	58	Q4	NA	10
Soil and Water Research	Soil Science	ČR	27	Q4	NA	11
	Water Resources			Q4		
Acta Veterinaria Brno	Veterinary Sciences	ČR	64	Q3	Q4	32
Veterinarni medicina	Veterinary Sciences	ČR	84	Q3	Q3	8
Acta Virologica	Virology	SR	53	Q4	Q4	5
Journal of Hydrology and Hydromechanics	Water Resources	SR	40	Q2	Q4	18
Folia Zoologica	Zoology	ČR	20	Q3	Q3	14

^{*} Number of articles in 2014 with a Czech affiliation ** Share of self-citations in the period 2012-2013, which is used in calculating of the IF in 2014



Attachment: Discipline Sheets

\mathbf{A}	<u>Chemistry, Analytical</u>	E	\mathbf{F}
Acoustics	<u>Chemistry, Applied</u>	<u>Ecology</u>	<u>Family Studies</u>
Agricultural Economics and Policy	Chemistry, Inorganic and Nuclear	<u>Economics</u>	<u>Fisheries</u>
Agricultural Engineering	Chemistry, Medicinal	Education and Educational	Food Science and Technology
Agriculture, Dairy and Animal	Chemistry, Multidisciplinary	<u>Research</u>	<u>Forestry</u>
<u>Science</u>	<u>Chemistry, Organic</u>	Education, Scientific Disciplines	G
Agriculture, Multidisciplinary	<u>Chemistry, Physical</u>	Education, Special	Gastroenterology and Hepatology
<u>Agronomy</u>	<u>Clinical Neurology</u>	<u>Electrochemistry</u>	Genetics and Heredity
<u>Allergy</u>	<u>Communication</u>	Emergency Medicine	Geochemistry and Geophysics
Anatomy and Morphology	Computer Science, Artificial	Endocrinology and Metabolism	Geography
<u>Andrology</u>	<u>Intelligence</u>	Energy and Fuels	Geography, Physical
Anesthesiology	Computer Science, Cybernetics	Engineering, Aerospace	Geology
<u>Anthropology</u>	Computer Science, Hardware and	Engineering, Biomedical	Geosciences, Multidisciplinary
<u>Area Studies</u>	<u>Architecture</u>	Engineering, Chemical	Geriatrics and Gerontology
<u>Astronomy and Astrophysics</u>	Computer Science, Information	Engineering, Civil	<u>Gerontology</u>
Audiology and Speech Language	<u>Systems</u>	Engineering, Electrical and	H
<u>Pathology</u>	Computer Science, Interdisciplinary	<u>Electronic</u>	Health Care Sciences and Services
Automation and Control Systems	<u>Applications</u>	Engineering, Environmental	Health Policy and Services
В	Computer Science, Software	Engineering, Geological	<u>Hematology</u>
Behavioral Sciences	Engineering	Engineering, Industrial	<u>History</u>
Biochemical Research Methods	Computer Science, Theory and	Engineering, Manufacturing	<u>History and Philosophy of Science</u>
Biochemistry and Molecular Biology	<u>Methods</u>	Engineering, Marine	History of Social Sciences
Biodiversity Conservation	Construction and Building	Engineering, Mechanical	<u>Horticulture</u>
<u>Biology</u>	<u>Technology</u>	Engineering, Multidisciplinary	Hospitality, Leisure Sport and
<u>Biophysics</u>	Criminology and Penology	Engineering, Ocean	<u>Tourism</u>
Biotechnology and Applied	<u>Critical Care Medicine</u>	Engineering, Petroleum	I
<u>Microbiology</u>	<u>Crystallography</u>	<u>Entomology</u>	Imaging Science and Photographic
<u>Business</u>	<u>Cultural Studies</u>	Environmental Sciences	<u>Technology</u>
Business, Finance	D	Environmental Studies	<u>Immunology</u>
\mathbf{C}	<u>Demography</u>	Ergonomics	Industrial Relations and Labor
Cardiac and Cardiovascular Systems	Dentistry, Oral Surgery and Medicine	<u>Ethics</u>	<u>Infectious Diseases</u>
Cell and Tissue Engineering	<u>Dermatology</u>	Ethnic Studies	Information Science and Library
<u>Cell Biology</u>	<u>Developmental Biology</u>	Evolutionary Biology	Science

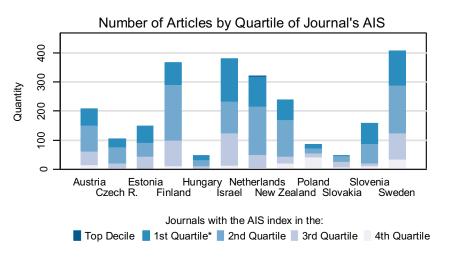
Instruments and Instrumentation Meteorology and Atmospheric Physics, Mathematical Social Sciences, Mathematical **Integrative and Complementary** Physics, Multidisciplinary Methods Sciences Medicine **Microbiology** Physics, Nuclear Social Work Physics, Particles and Fields Sociology **International Relations Microscopy** Physiology Soil Science Mineralogy \mathbf{L} Planning and Development Law Mining and Mineral Processing Spectroscopy **Multidisciplinary Sciences Plant Sciences** Limnology **Sport Sciences** Linguistics **Political Science** Statistics and Probability **Mycology Logic** N **Polymer Science Substance Abuse** Nanoscience and Nanotechnology **Primary Health Care** M **Surgery Neuroimaging Psychiatry** Management Marine and Freshwater Biology Neurosciences Psychology **Telecommunications** Materials Science, Biomaterials **Nuclear Science and Technology** Psychology, Applied Thermodynamics Materials Science, Ceramics Psychology, Biological Toxicology Nursing Materials Science, Characterization **Nutrition and Dietetics** Psychology, Clinical **Transplantation** Psychology, Developmental and Testing **Transportation** Materials Science, Coatings and Psychology, Educational Transportation Science and Obstetrics and Gynecology Oceanography Psychology, Experimental Technology **Films** Psychology, Mathematical **Tropical Medicine** Materials Science, Composites Oncology Materials Science, Multidisciplinary Operations Research and Psychology, Multidisciplinary TJ Materials Science, Paper and Wood **Management Science** Psychology, Psychoanalysis **Urban Studies** Psychology, Social Materials Science, Textiles Ophthalmology **Urology and Nephrology Mathematical and Computational Optics Public Administration Biology** Public, Environmental and Ornithology **Veterinary Sciences Mathematics Orthopedics** Occupational Health Virology Mathematics, Applied Otorhinolaryngology \mathbf{W} Mathematics, Interdisciplinary Radiology, Nuclear Medicine and **Water Resources Medical Imaging Applications Paleontology** Women's Studies **Mechanics** Parasitology Rehabilitation 7 **Pathology Remote Sensing** Zoology **Medical Ethics Medical Informatics Pediatrics** Reproductive Biology **Medical Laboratory Technology** Peripheral Vascular Disease Respiratory System **Pharmacology and Pharmacy** Rheumatology Medicine, General and Internal Medicine, Legal Physics, Applied **Robotics** Medicine, Research and Physics, Atomic, Molecular and **Experimental** Chemical **Social Issues** Metallurgy and Metallurgical Physics, Condensed Matter Social Sciences, Biomedical

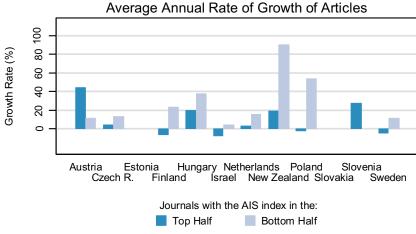
Social Sciences, Interdisciplinary

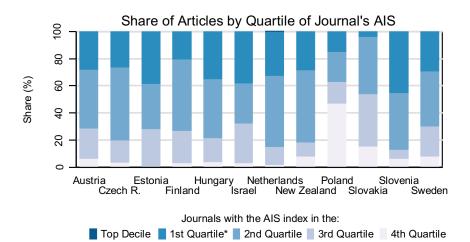
Physics, Fluids and Plasmas

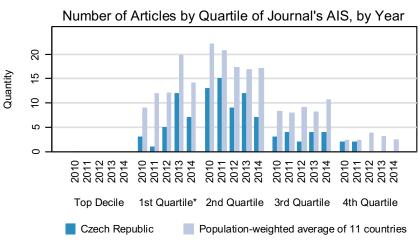
Engineering

ACOUSTICS





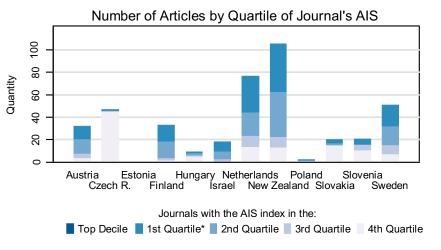


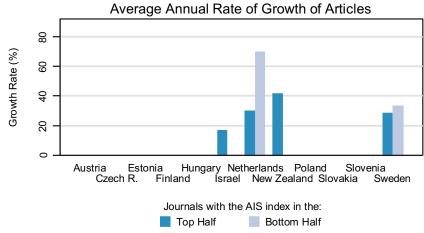


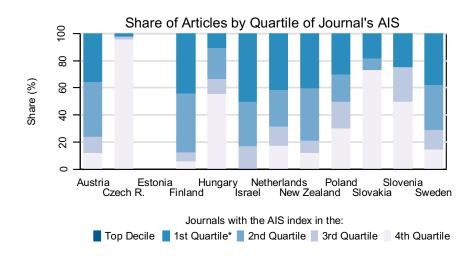
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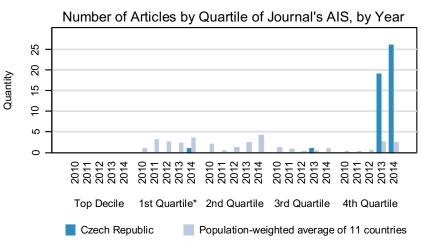
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AGRICULTURAL ECONOMICS & POLICY





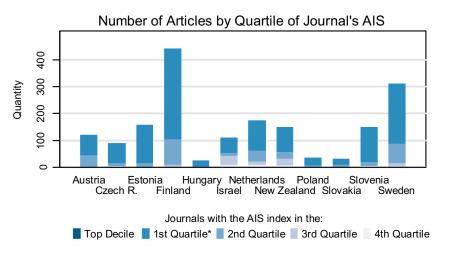


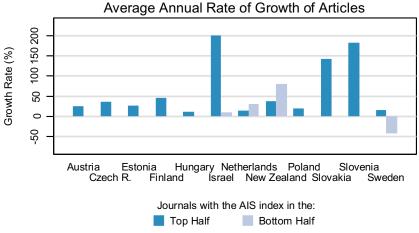


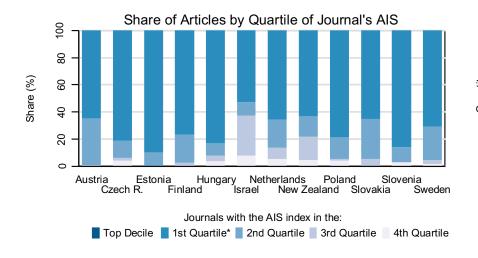
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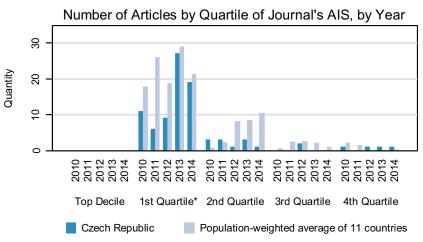
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AGRICULTURAL ENGINEERING





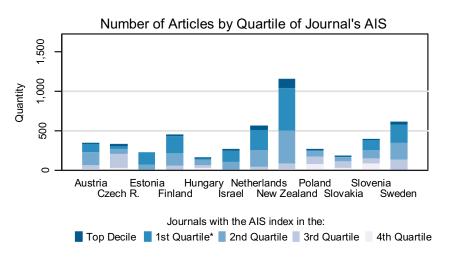


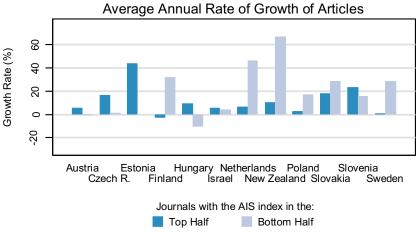


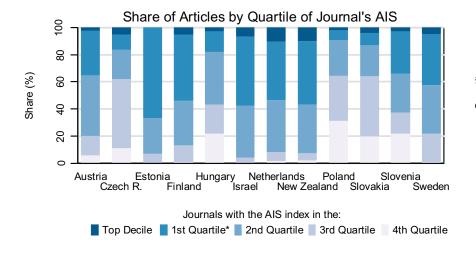
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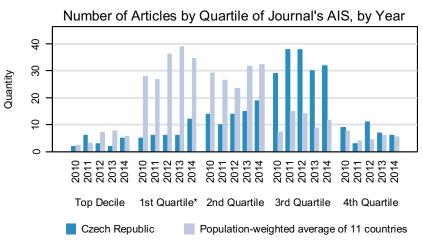
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AGRICULTURE, DAIRY & ANIMAL SCIENCE





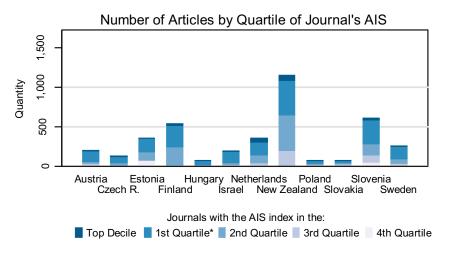


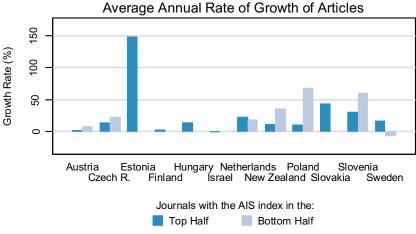


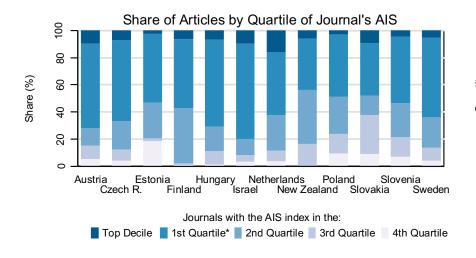
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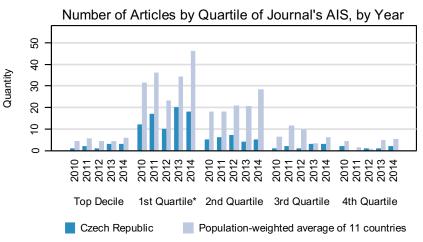
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AGRICULTURE, MULTIDISCIPLINARY





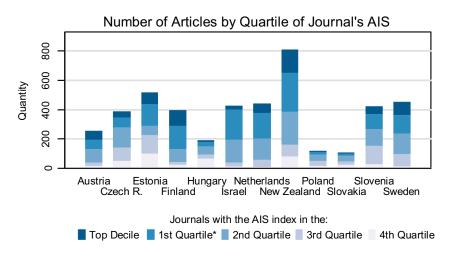


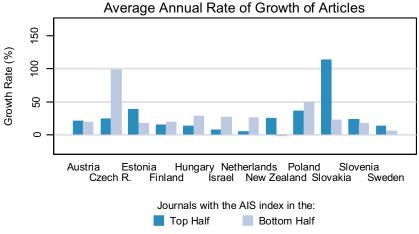


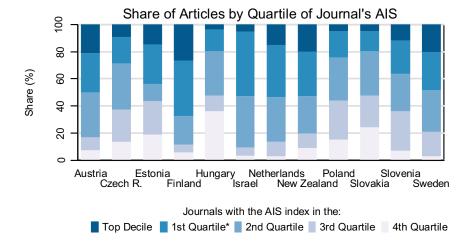
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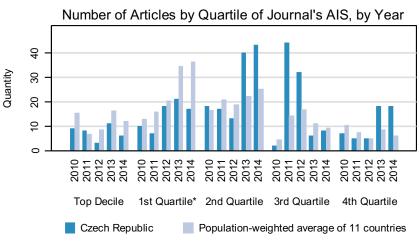
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AGRONOMY





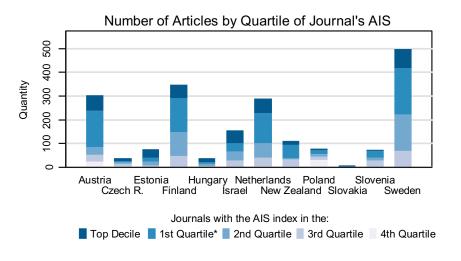


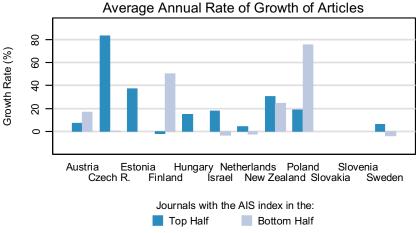


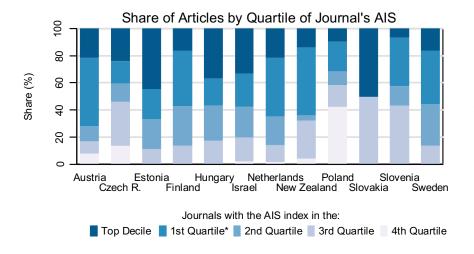
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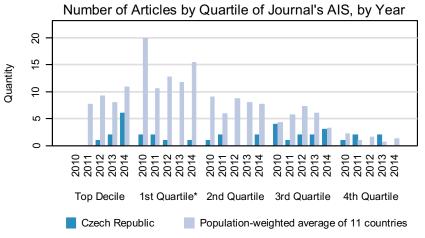
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ALLERGY





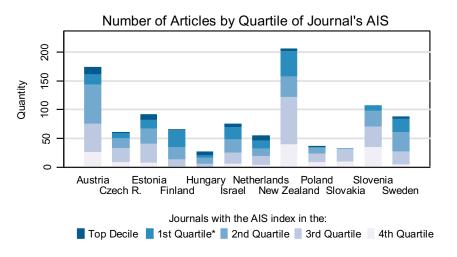


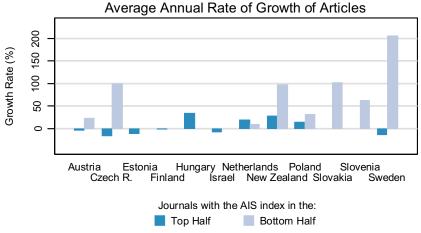


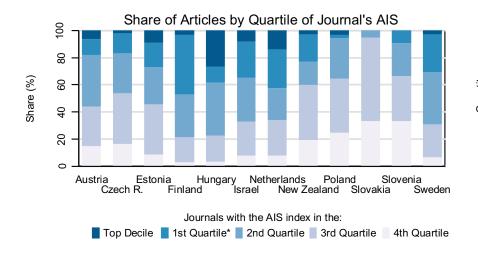
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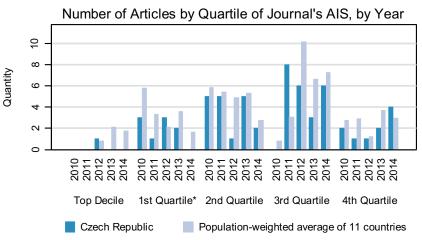
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ANATOMY & MORPHOLOGY





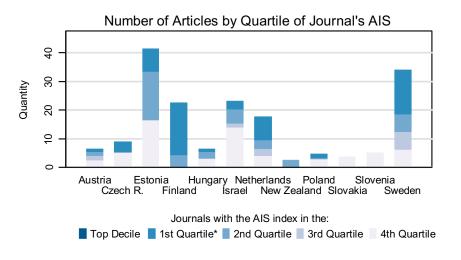


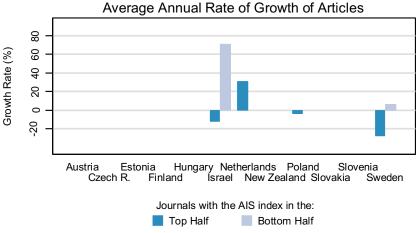


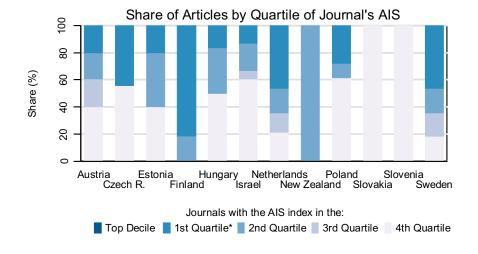
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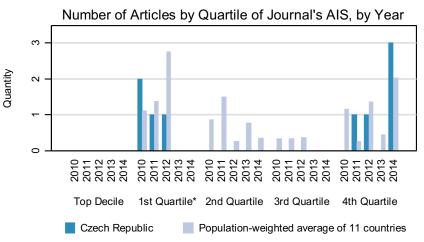
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ANDROLOGY





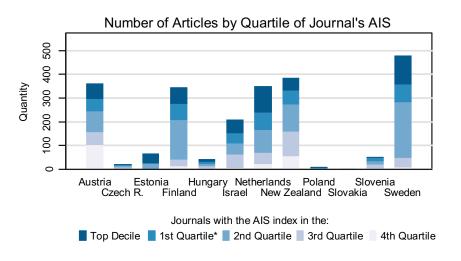


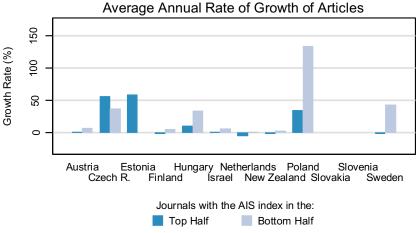


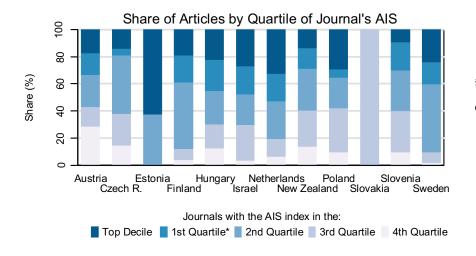
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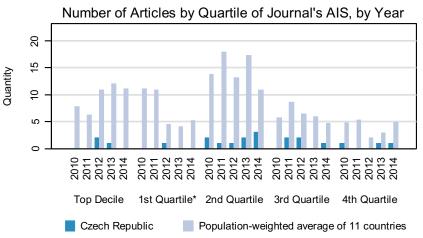
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ANESTHESIOLOGY





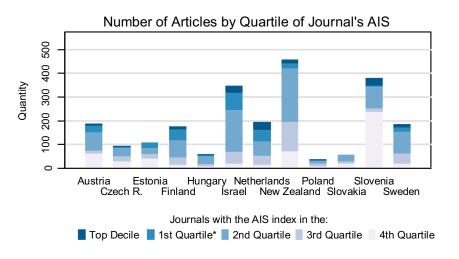


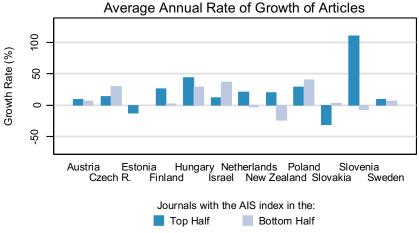


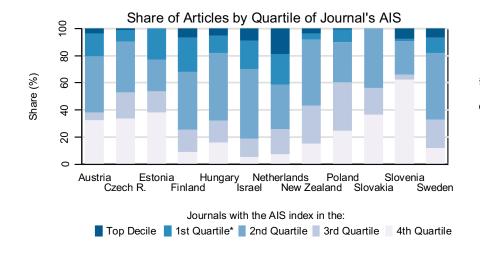
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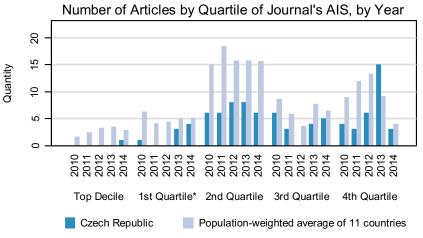
* 1st Quartile excludes the Top Decile

ANTHROPOLOGY





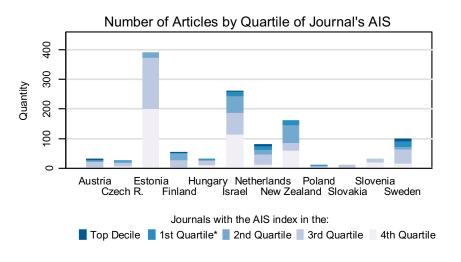


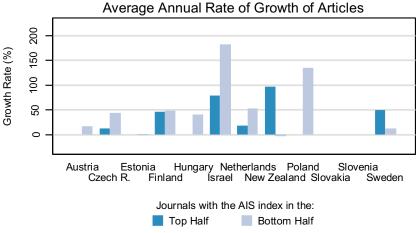


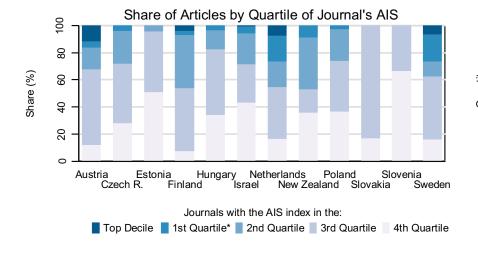
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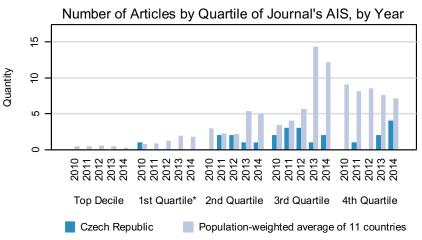
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AREA STUDIES





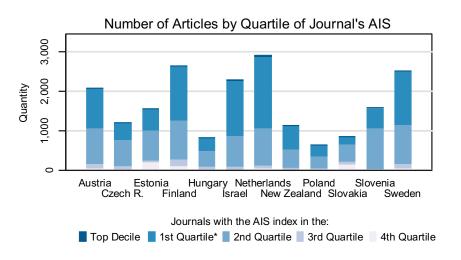


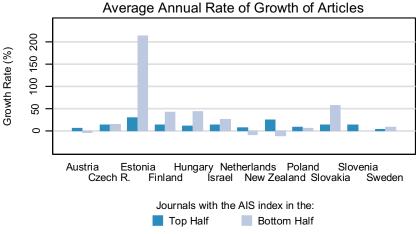


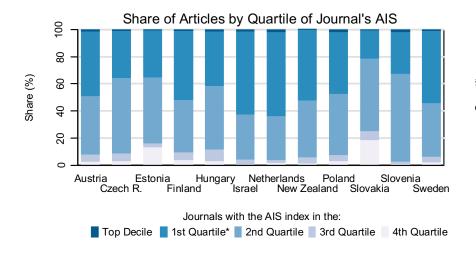
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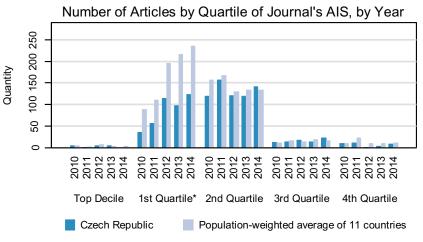
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ASTRONOMY & ASTROPHYSICS





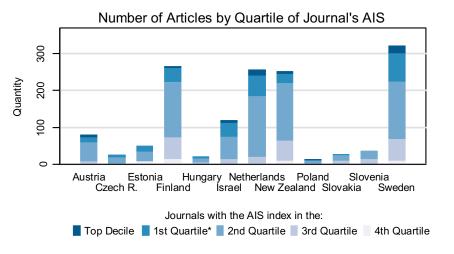


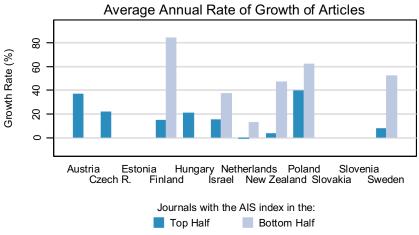


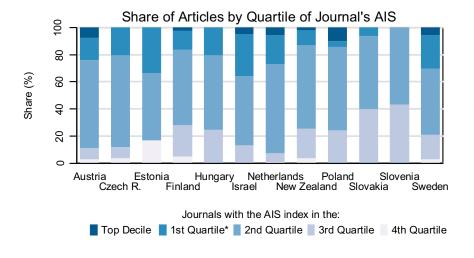
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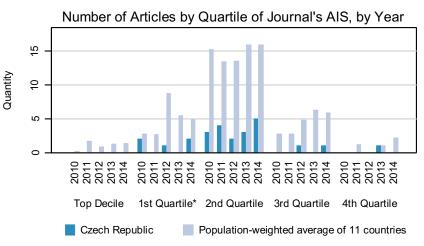
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AUDIOLOGY & SPEECH-LANGUAGE PATHOLOGY





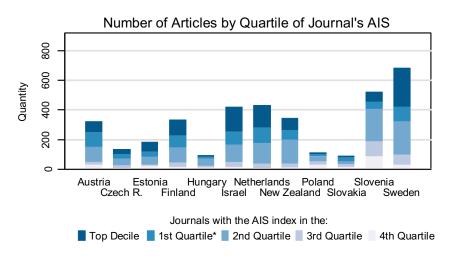


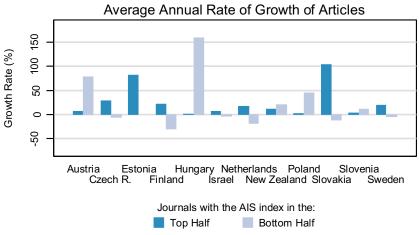


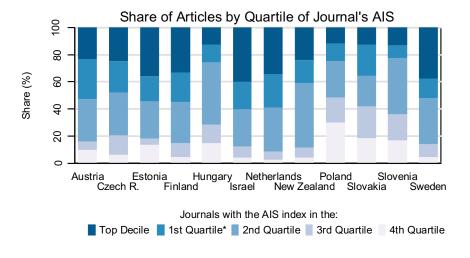
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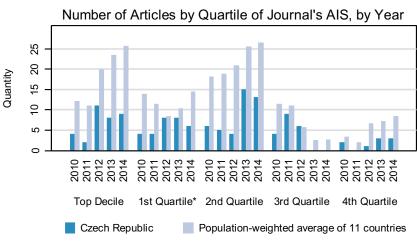
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AUTOMATION & CONTROL SYSTEMS





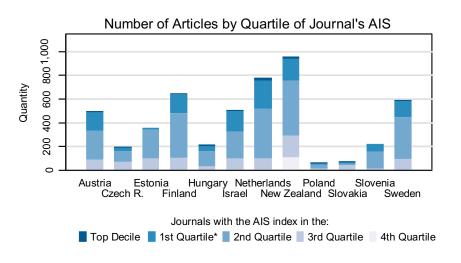


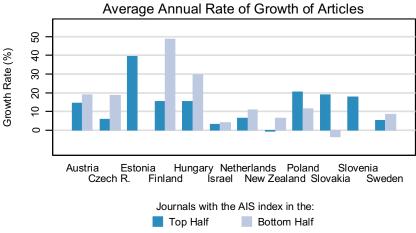


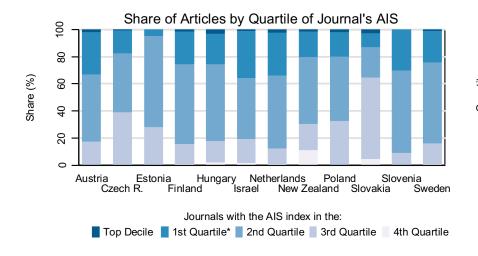
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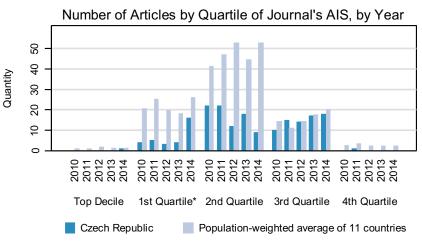
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BEHAVIORAL SCIENCES





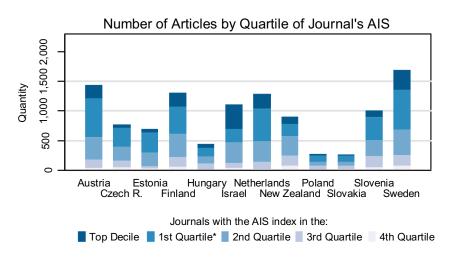


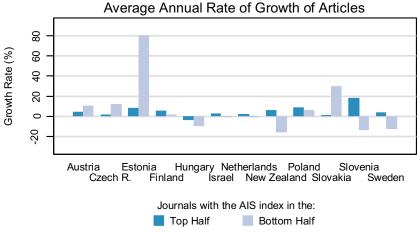


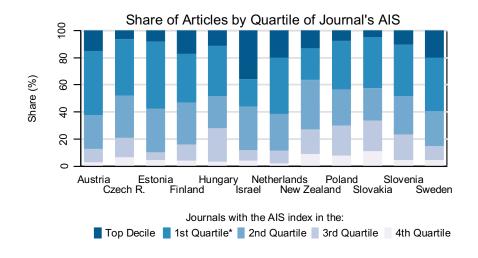
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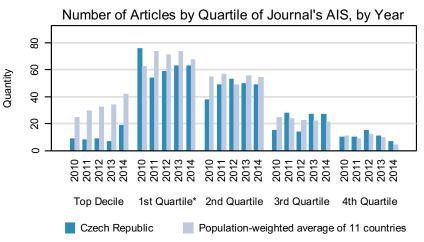
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BIOCHEMICAL RESEARCH METHODS





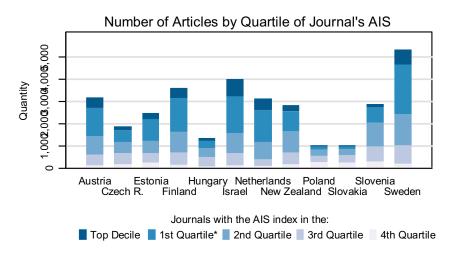


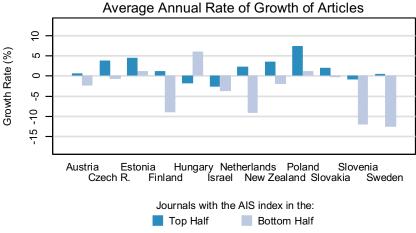


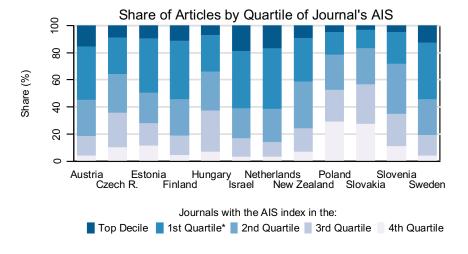
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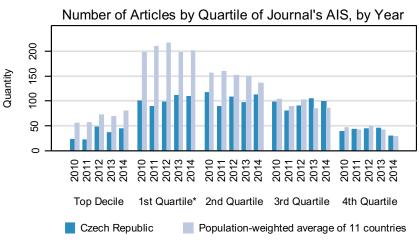
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BIOCHEMISTRY & MOLECULAR BIOLOGY





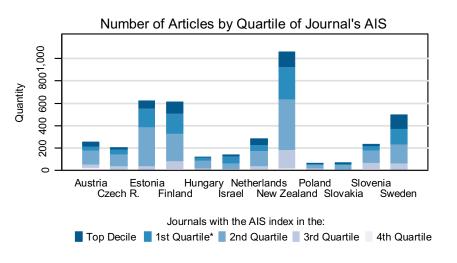


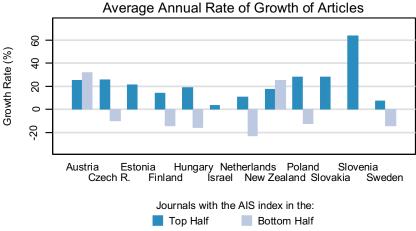


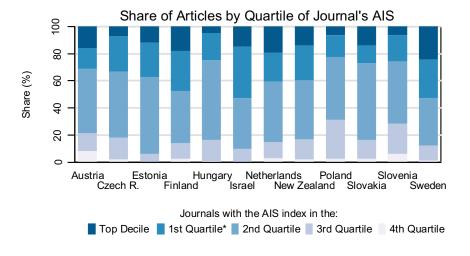
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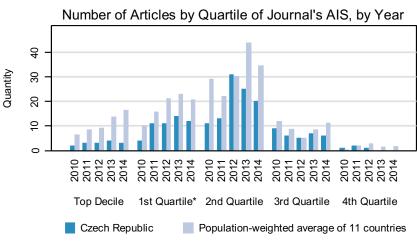
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BIODIVERSITY CONSERVATION





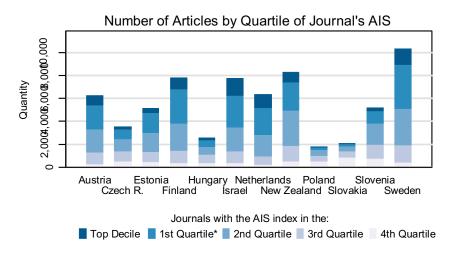


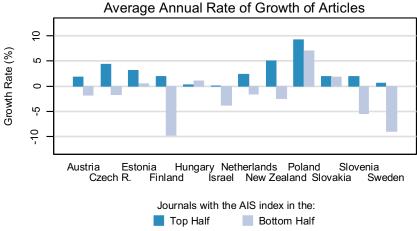


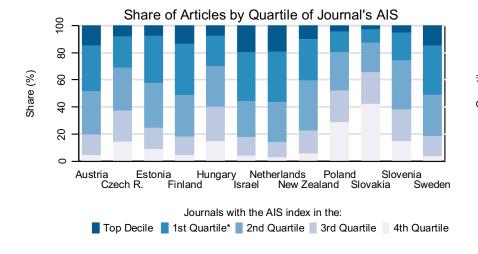
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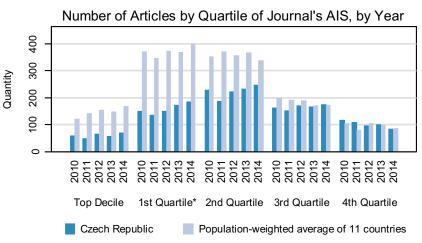
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BIOLOGY





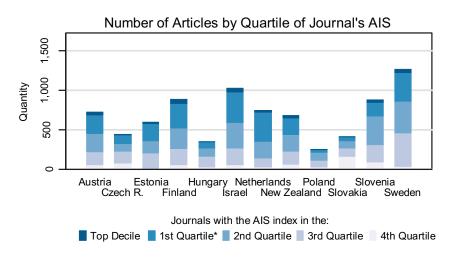


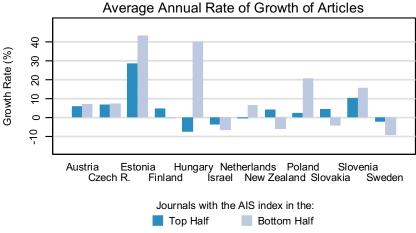


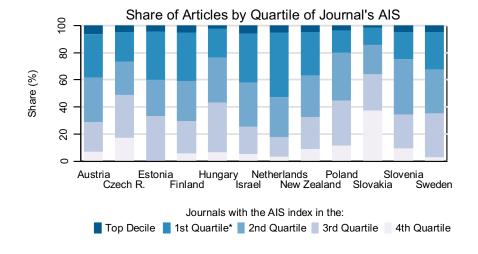
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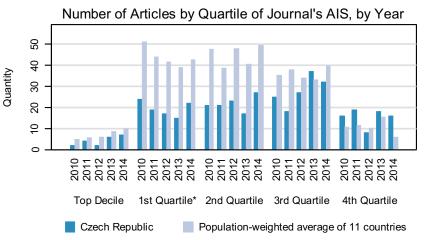
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BIOPHYSICS





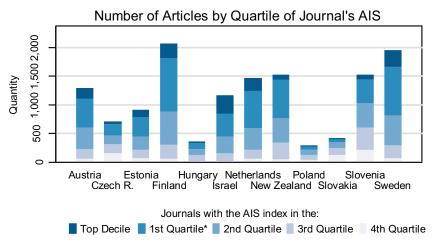


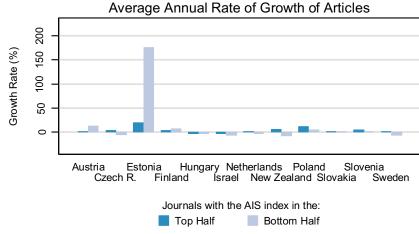


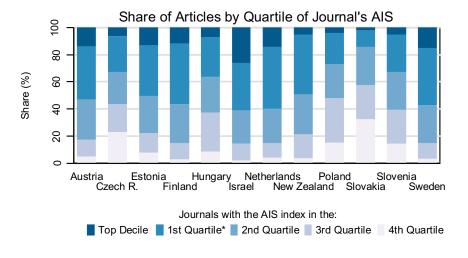
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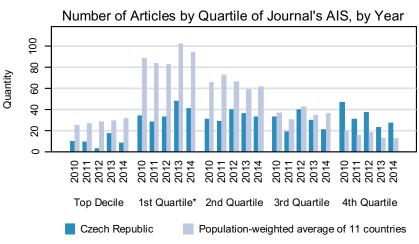
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BIOTECHNOLOGY & APPLIED MICROBIOLOGY





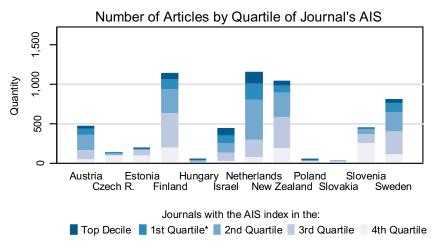


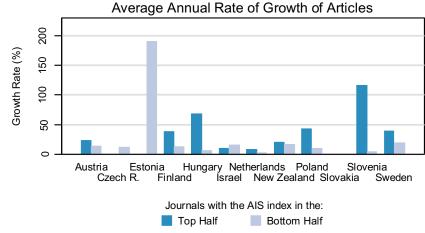


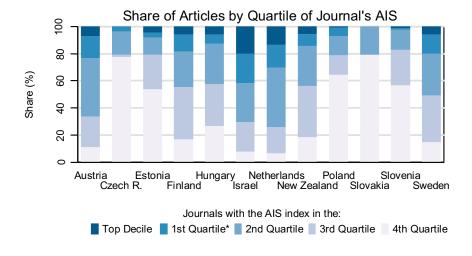
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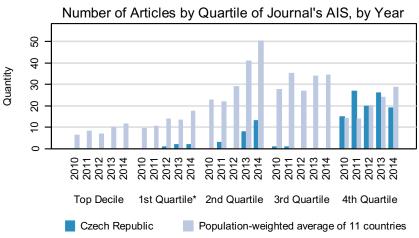
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BUSINESS





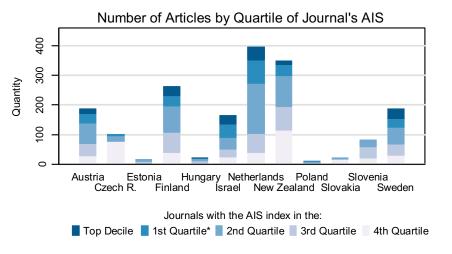


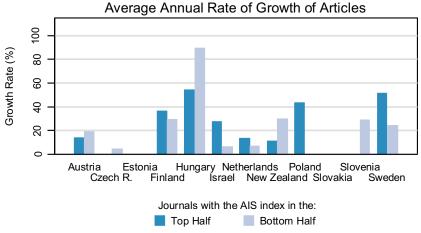


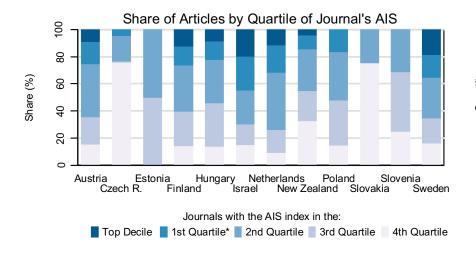
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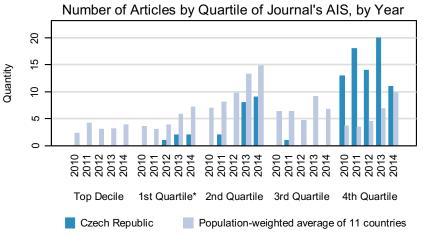
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BUSINESS, FINANCE





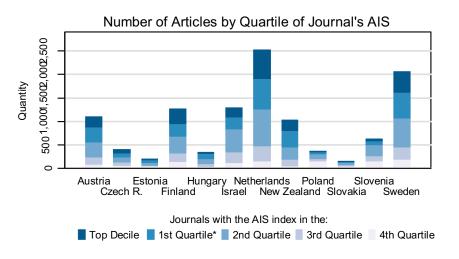


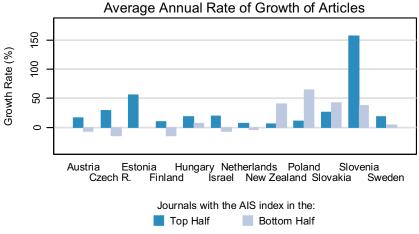


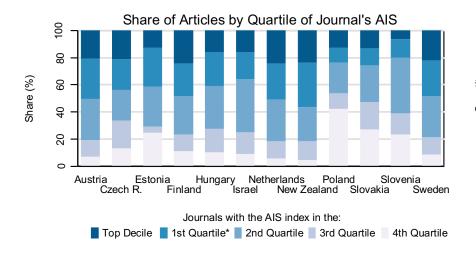
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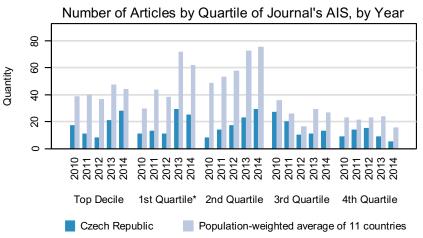
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CARDIAC & CARDIOVASCULAR SYSTEMS





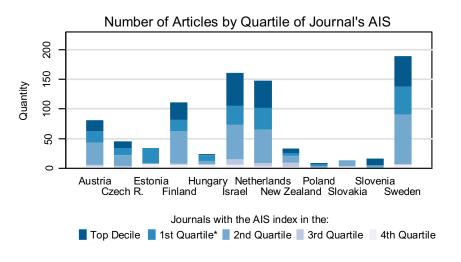


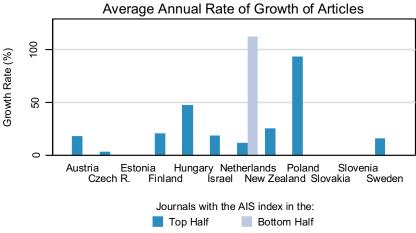


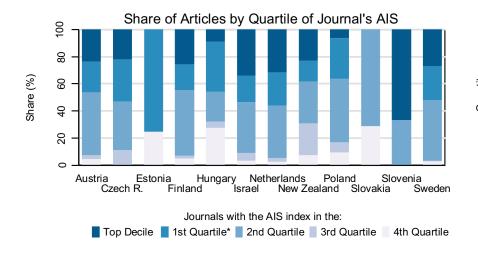
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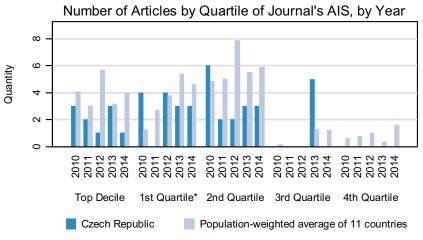
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CELL & TISSUE ENGINEERING





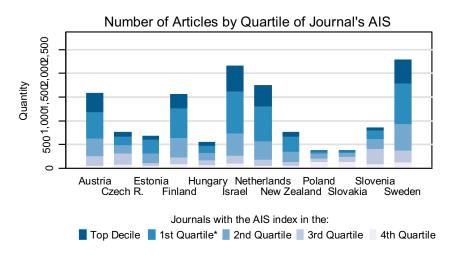


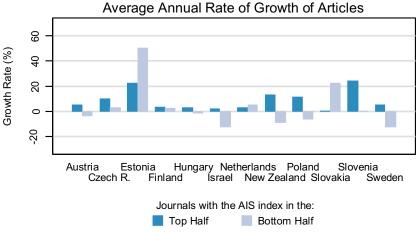


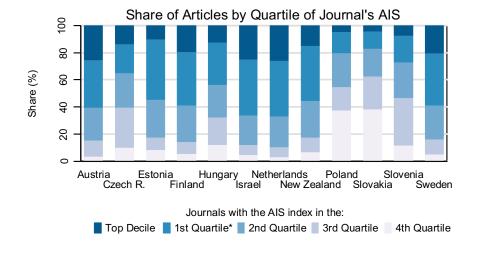
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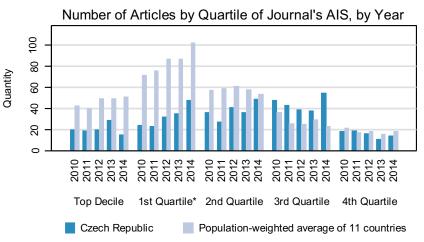
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CELL BIOLOGY





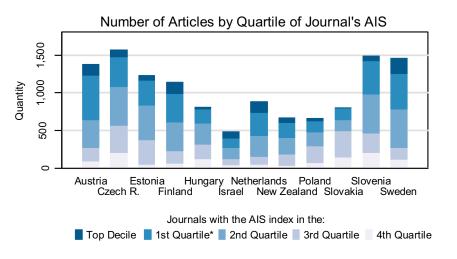


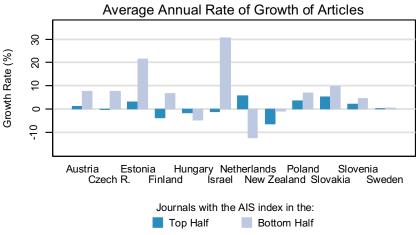


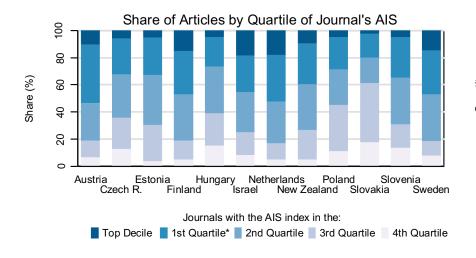
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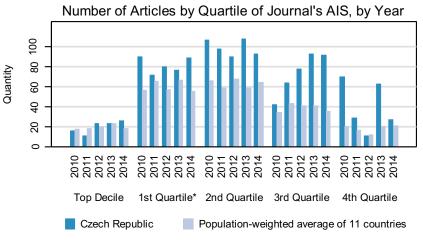
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CHEMISTRY, ANALYTICAL





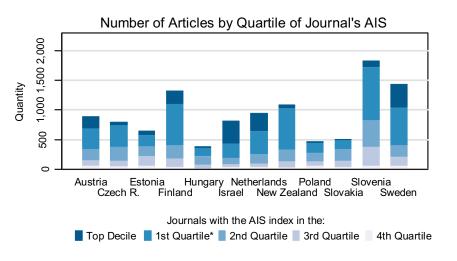


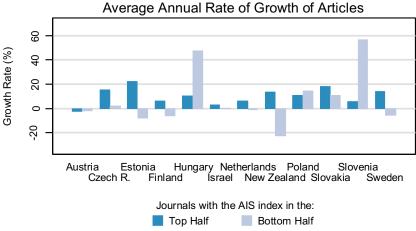


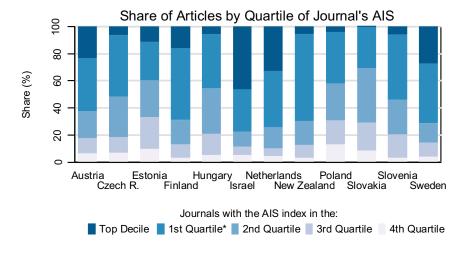
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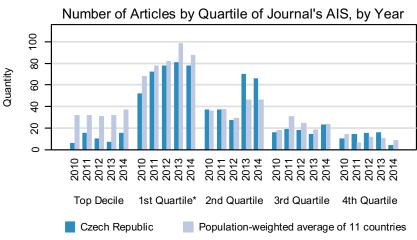
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CHEMISTRY, APPLIED





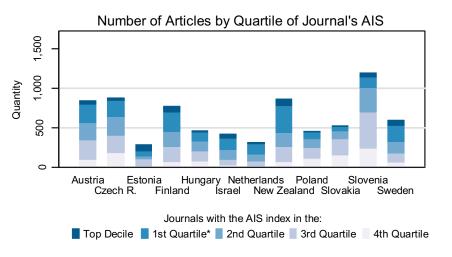


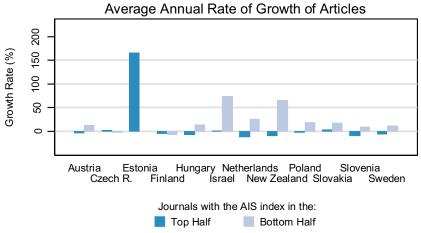


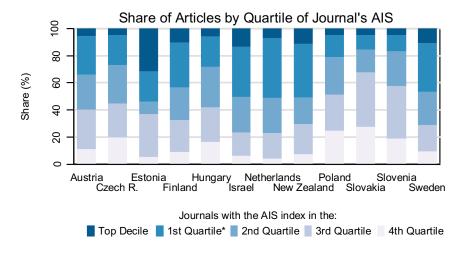
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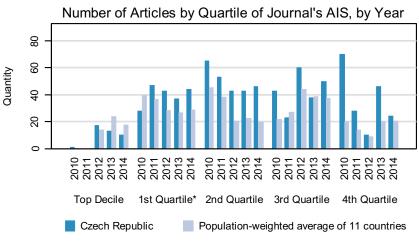
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CHEMISTRY, INORGANIC & NUCLEAR





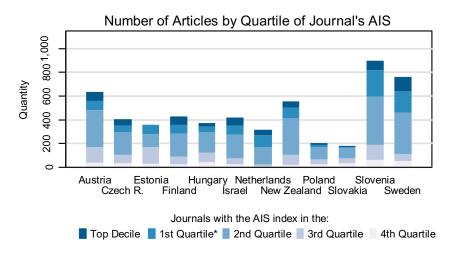


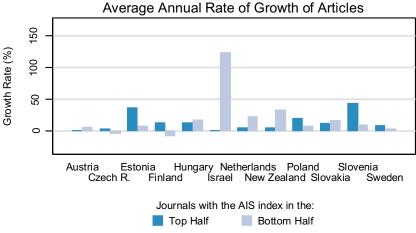


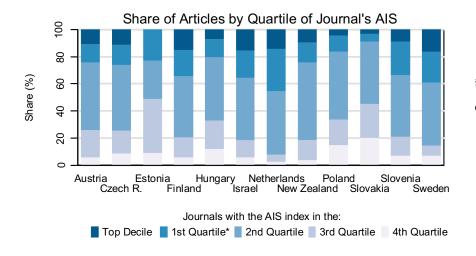
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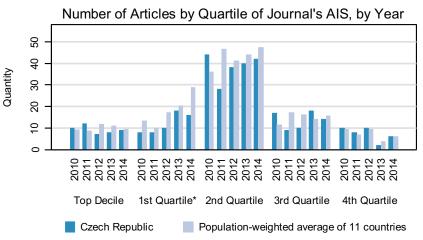
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CHEMISTRY, MEDICINAL





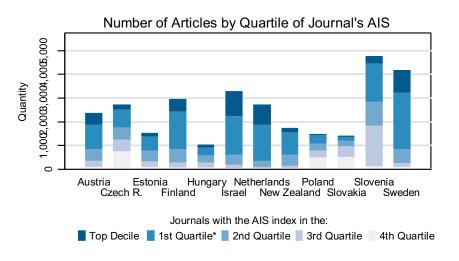


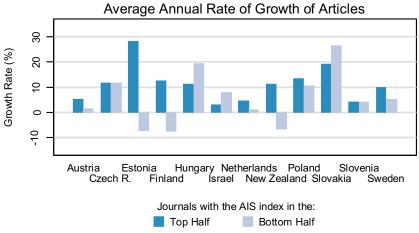


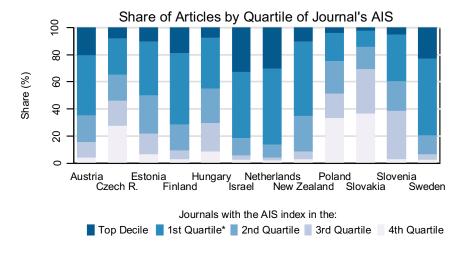
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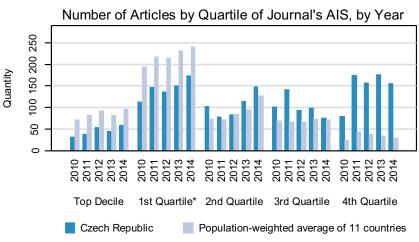
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CHEMISTRY, MULTIDISCIPLINARY





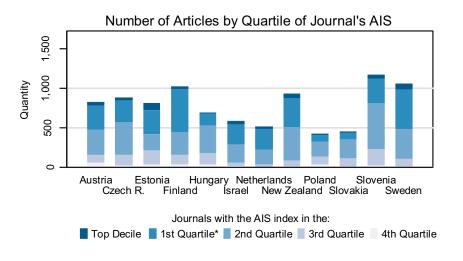


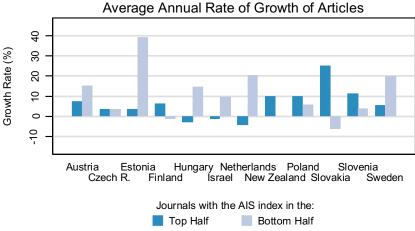


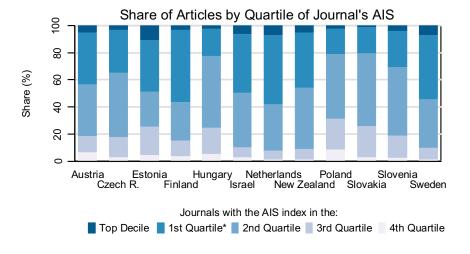
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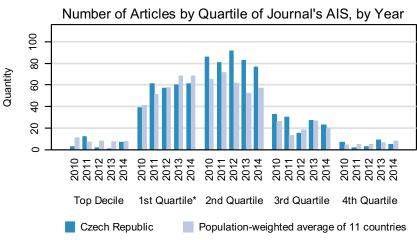
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CHEMISTRY, ORGANIC





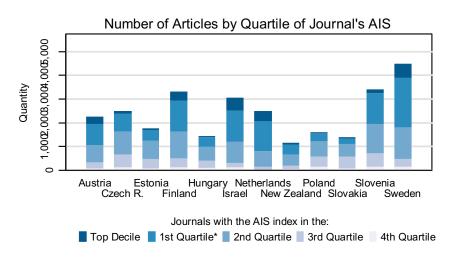


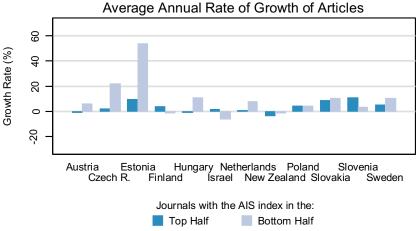


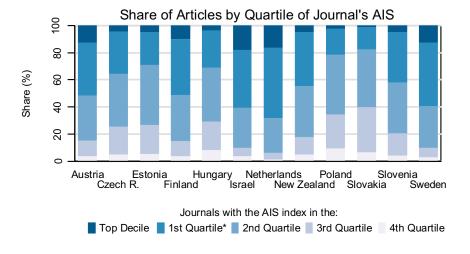
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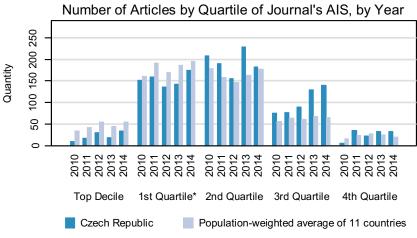
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CHEMISTRY, PHYSICAL





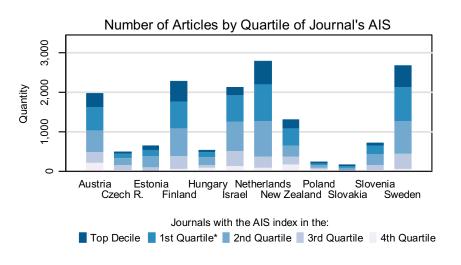


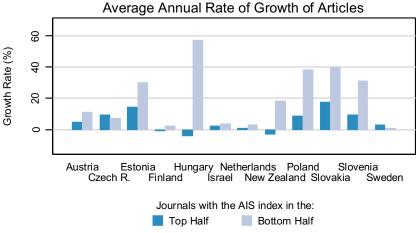


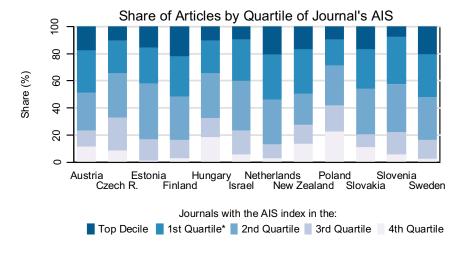
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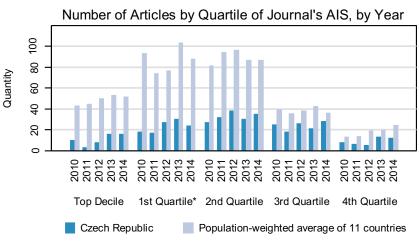
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CLINICAL NEUROLOGY





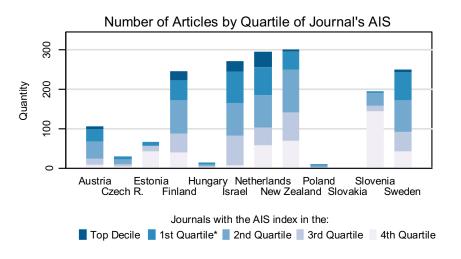


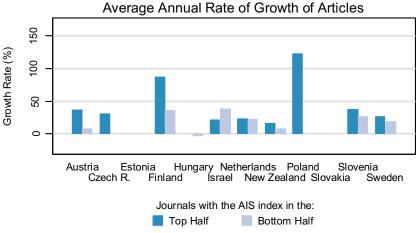


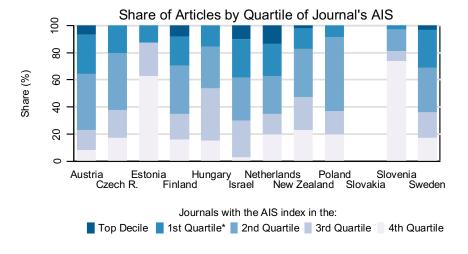
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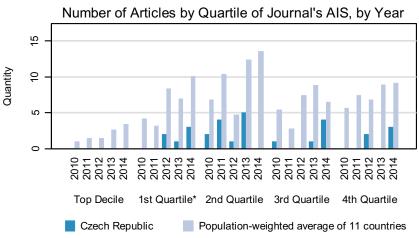
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COMMUNICATION





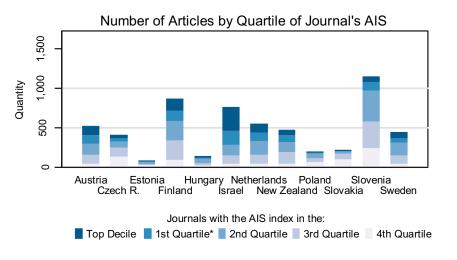


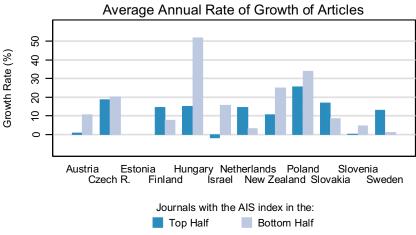


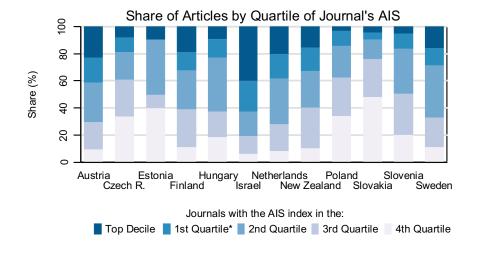
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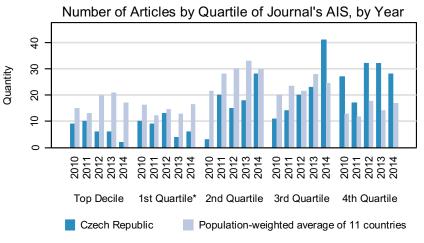
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COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE





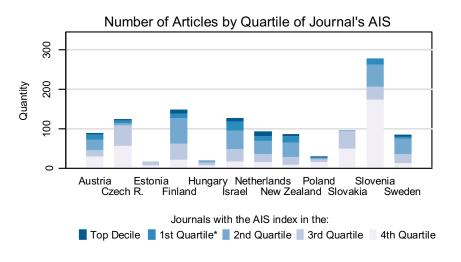


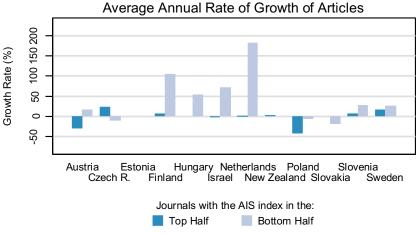


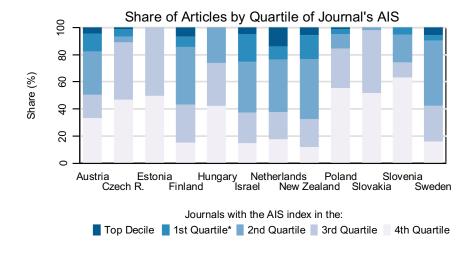
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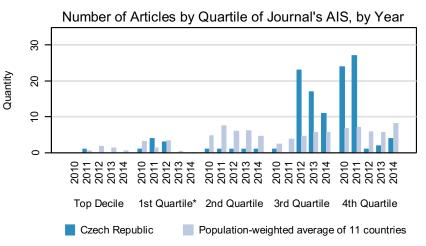
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COMPUTER SCIENCE, CYBERNETICS





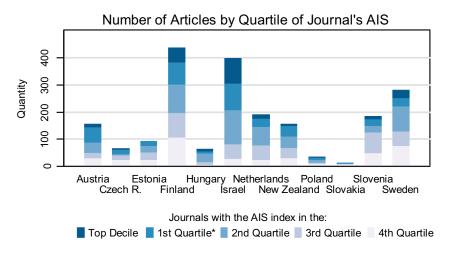


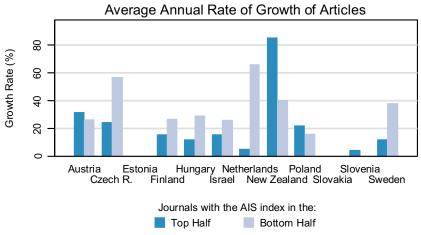


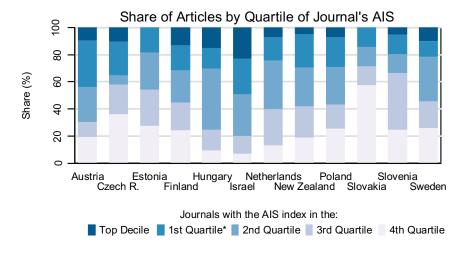
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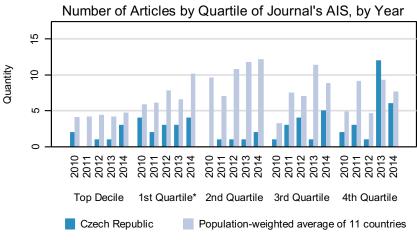
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COMPUTER SCIENCE, HARDWARE & ARCHITECTURE





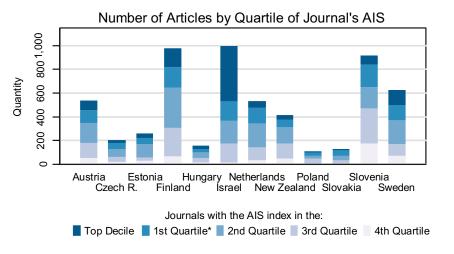


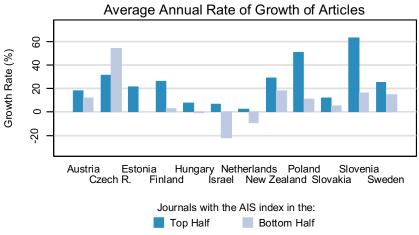


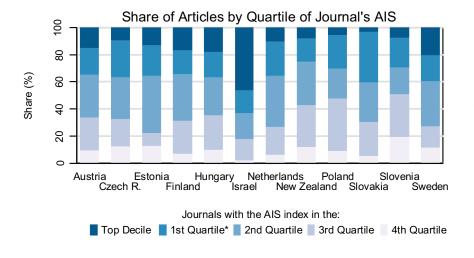
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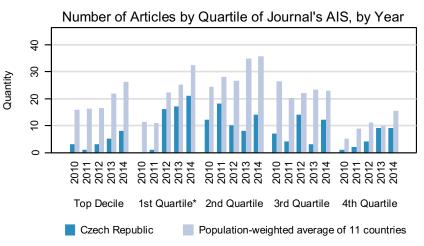
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COMPUTER SCIENCE, INFORMATION SYSTEMS





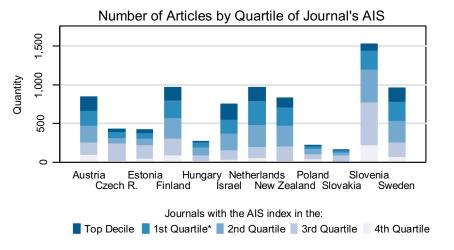


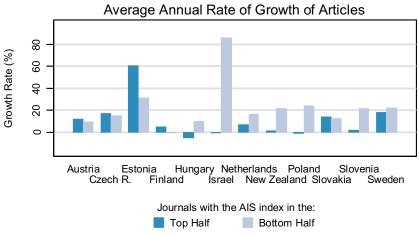


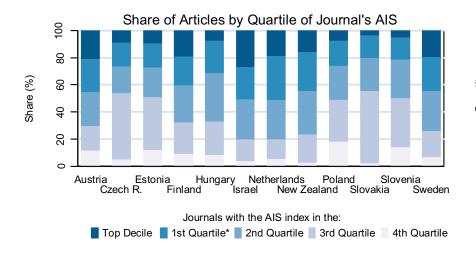
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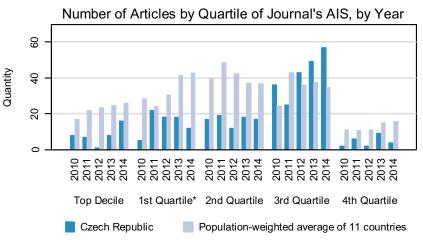
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COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS





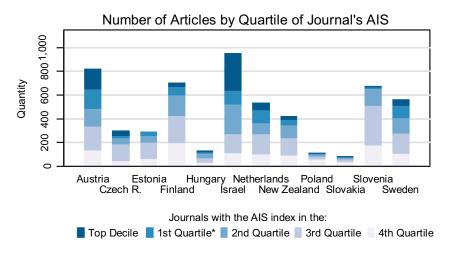


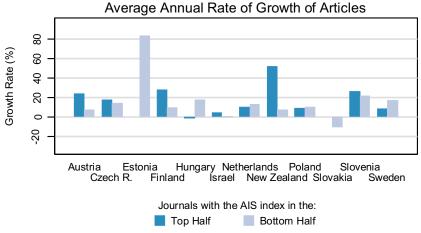


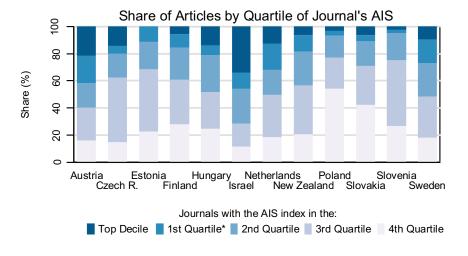
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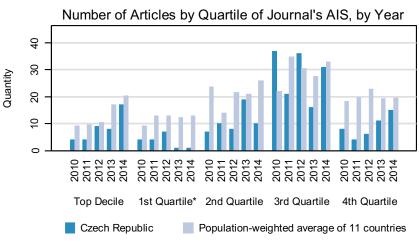
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COMPUTER SCIENCE, SOFTWARE ENGINEERING





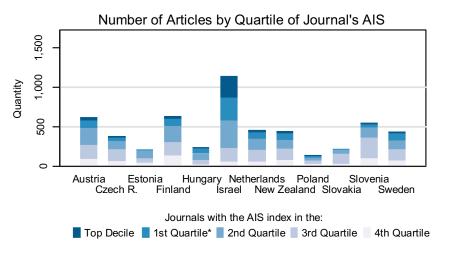


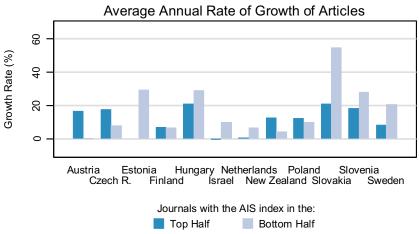


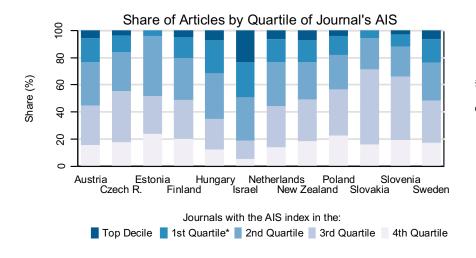
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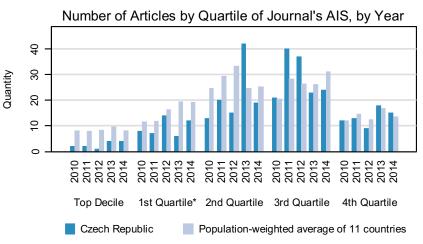
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COMPUTER SCIENCE, THEORY & METHODS





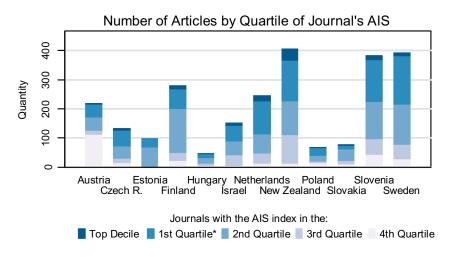


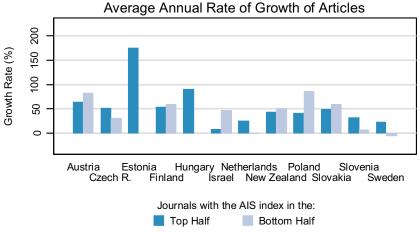


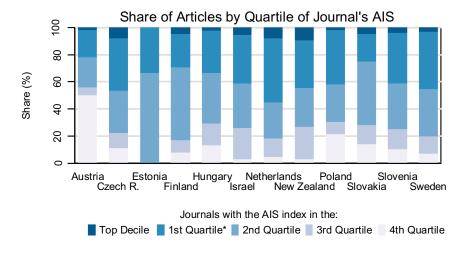
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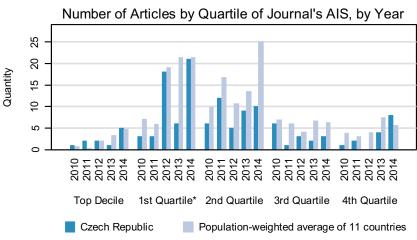
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CONSTRUCTION & BUILDING TECHNOLOGY





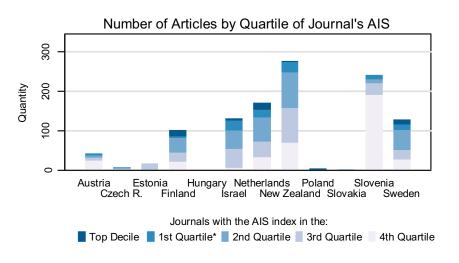


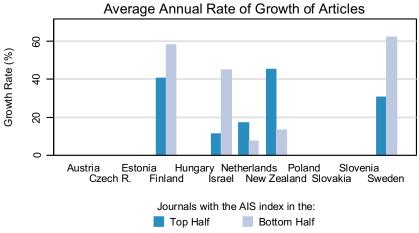


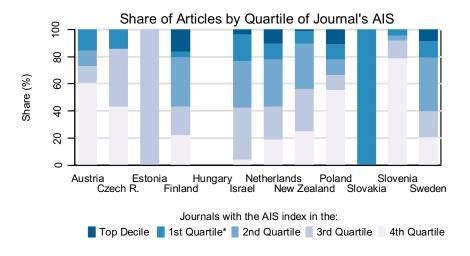
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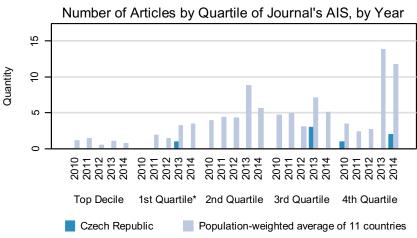
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CRIMINOLOGY & PENOLOGY





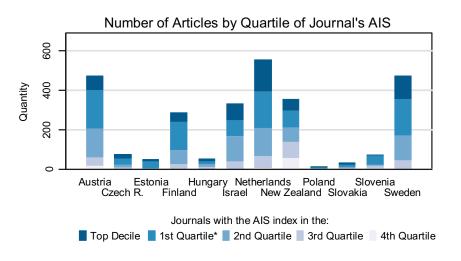


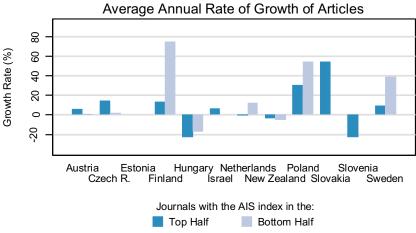


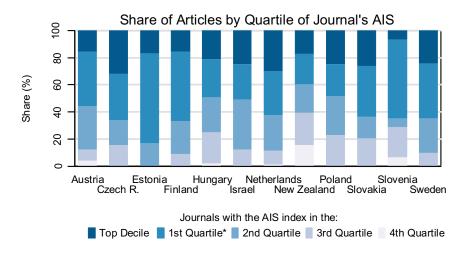
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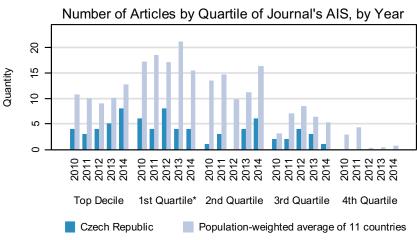
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CRITICAL CARE MEDICINE





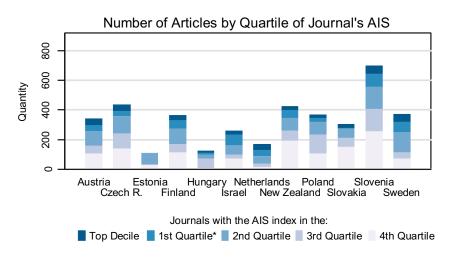


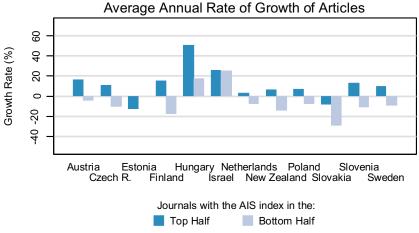


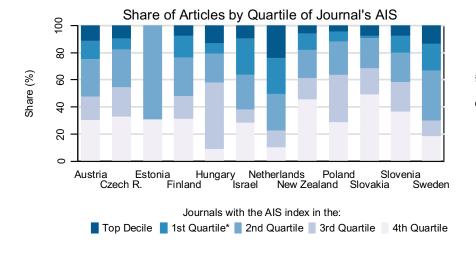
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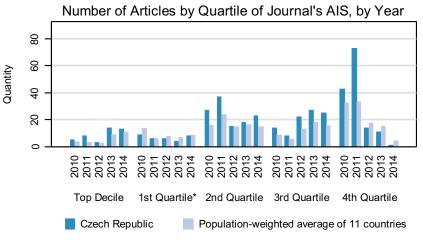
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CRYSTALLOGRAPHY





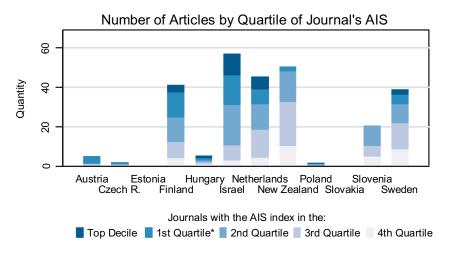


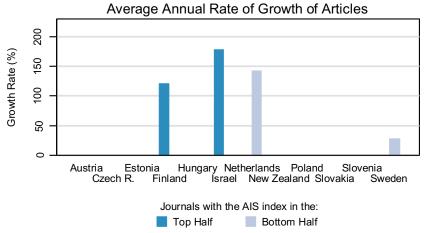


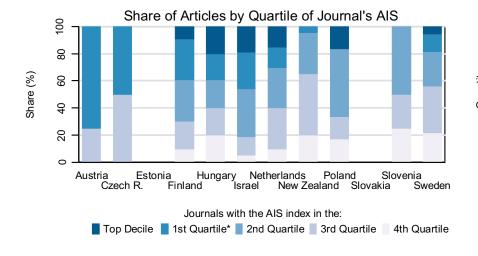
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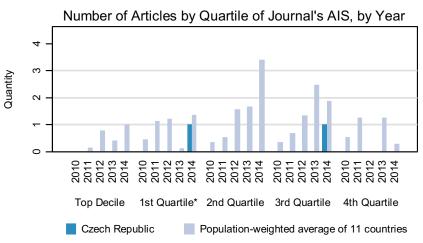
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CULTURAL STUDIES





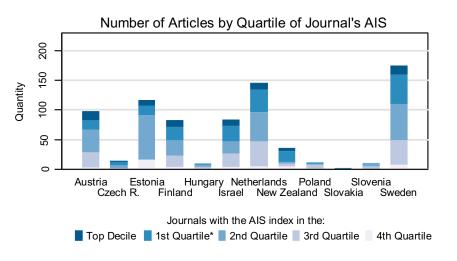


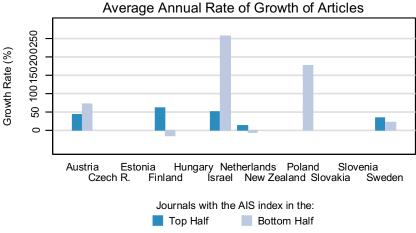


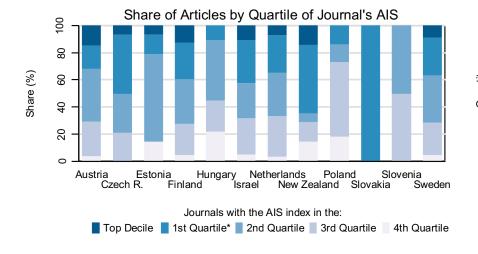
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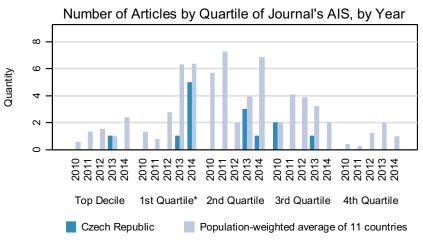
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DEMOGRAPHY





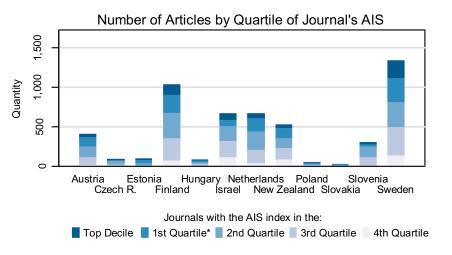


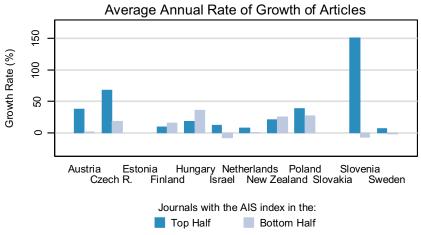


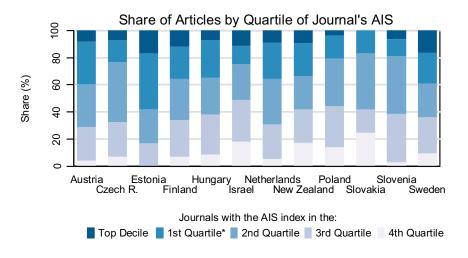
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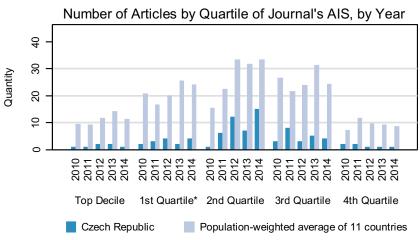
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DENTISTRY, ORAL SURGERY & MEDICINE





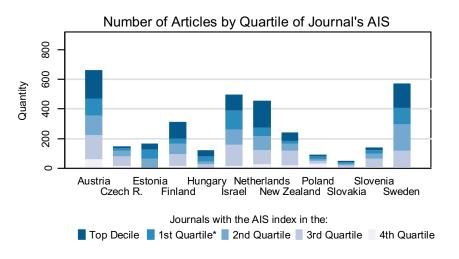


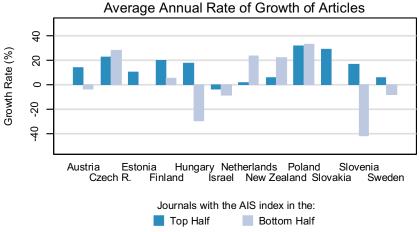


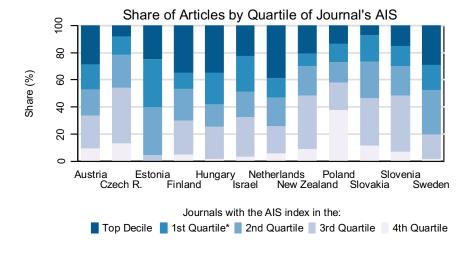
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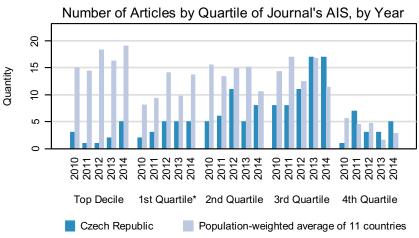
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DERMATOLOGY





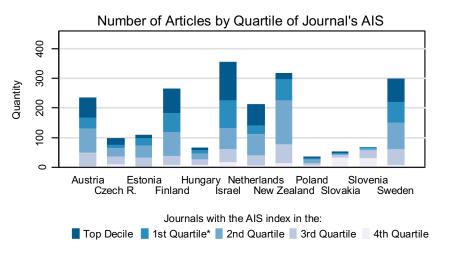


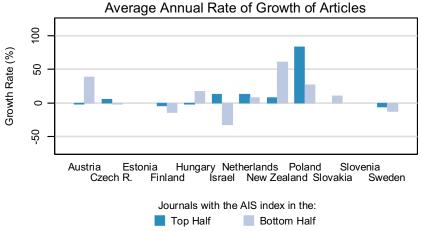


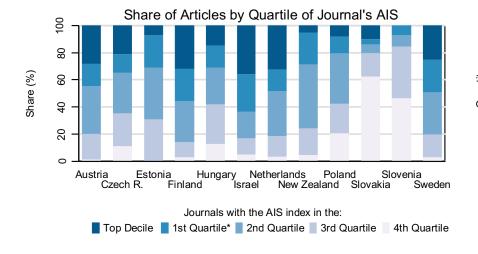
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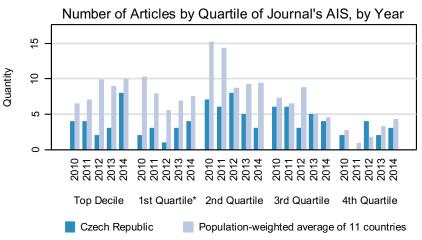
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DEVELOPMENTAL BIOLOGY





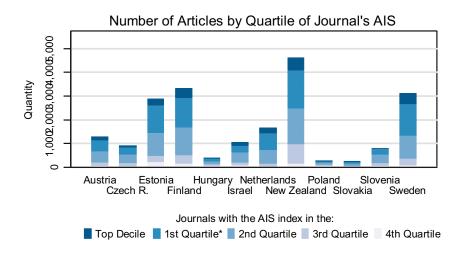


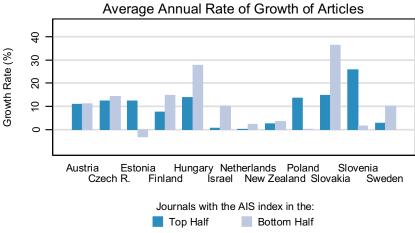


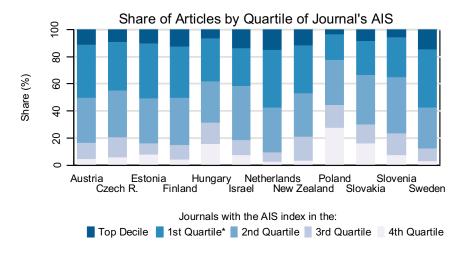
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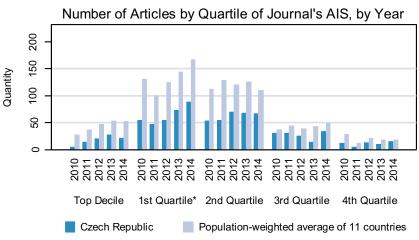
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ECOLOGY





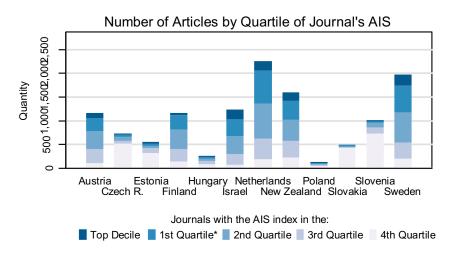


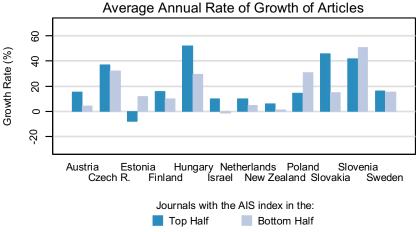


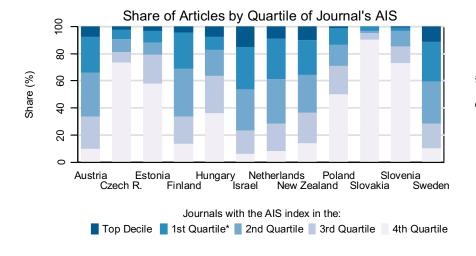
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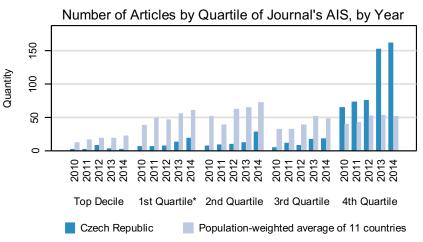
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ECONOMICS





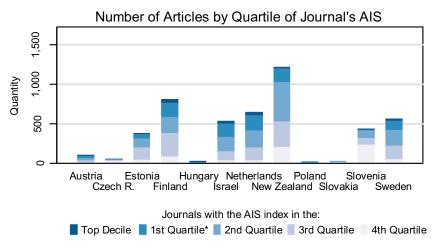


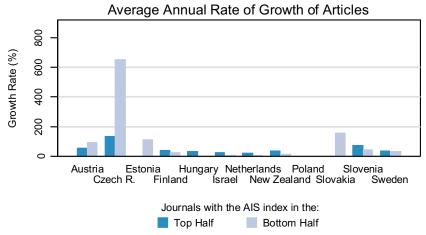


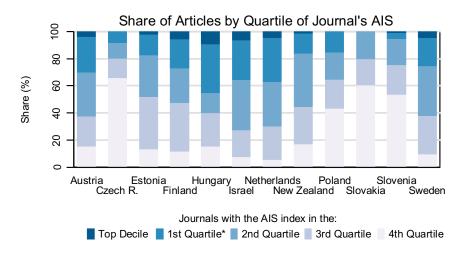
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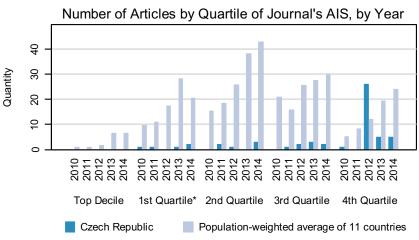
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EDUCATION & EDUCATIONAL RESEARCH





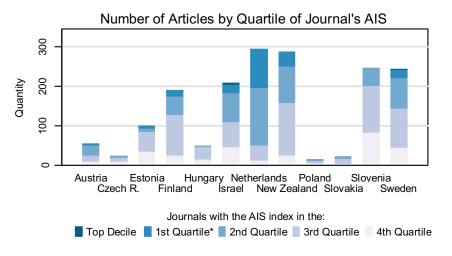


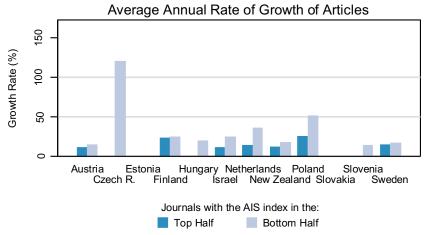


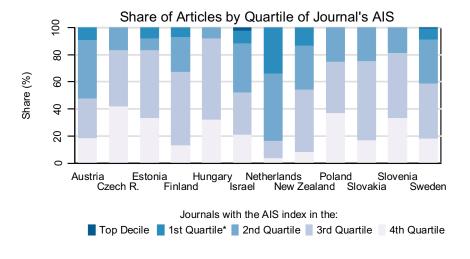
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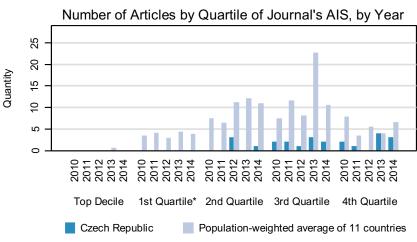
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EDUCATION, SCIENTIFIC DISCIPLINES





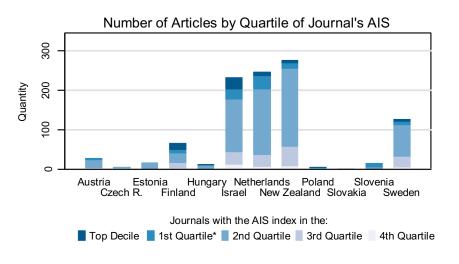


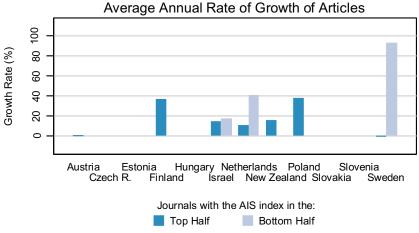


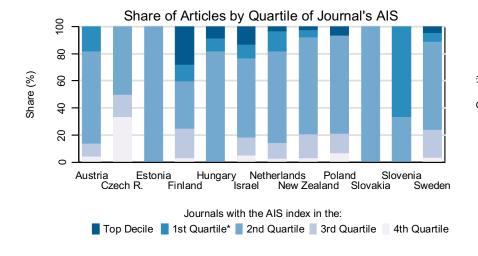
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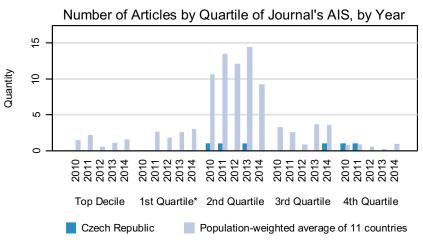
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EDUCATION, SPECIAL





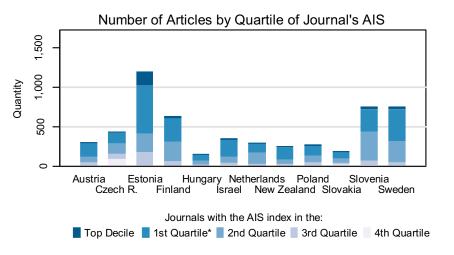


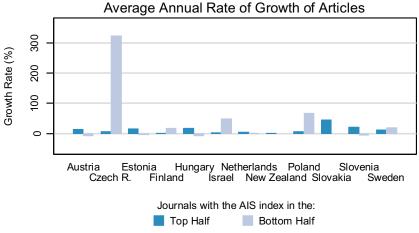


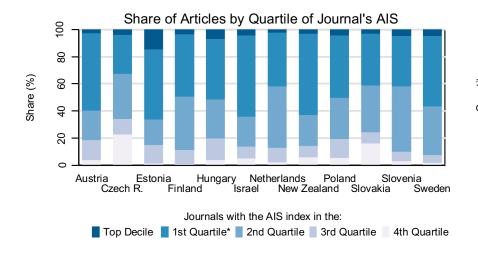
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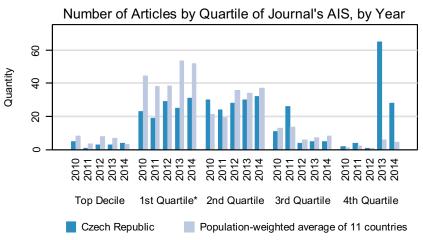
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ELECTROCHEMISTRY





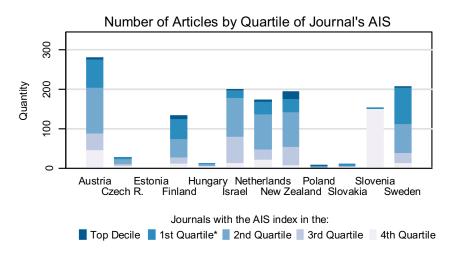


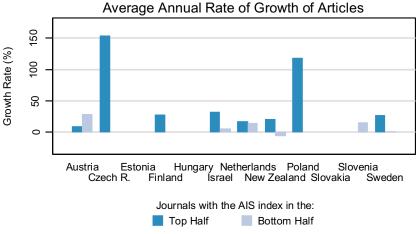


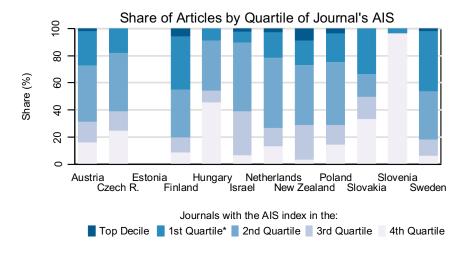
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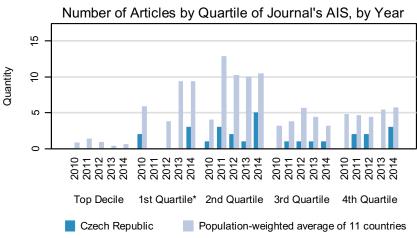
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EMERGENCY MEDICINE





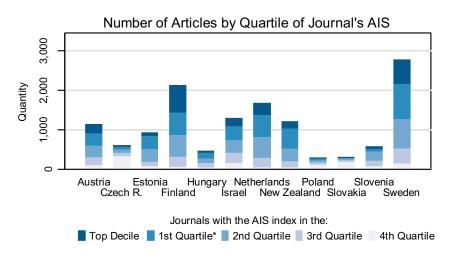


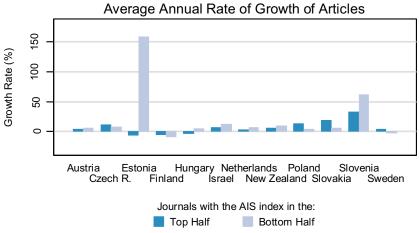


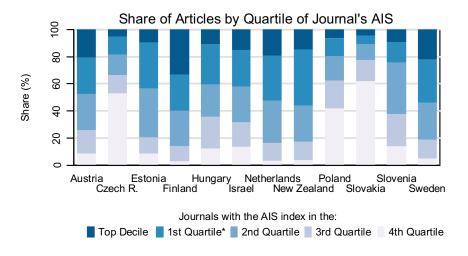
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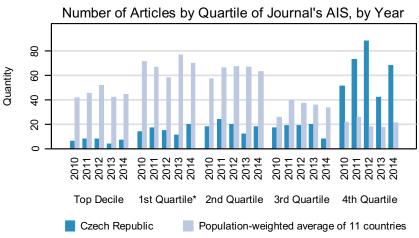
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ENDOCRINOLOGY & METABOLISM





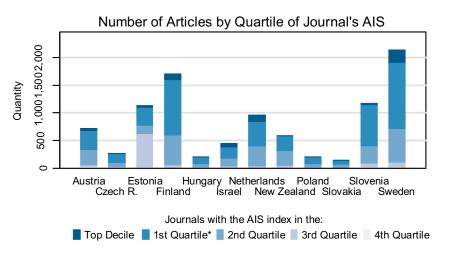


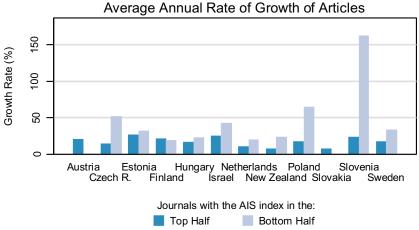


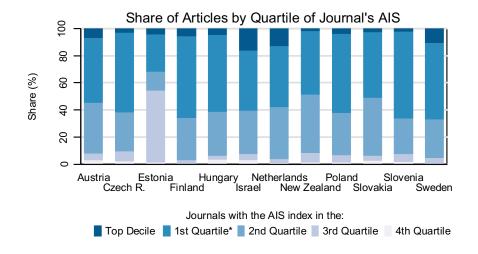
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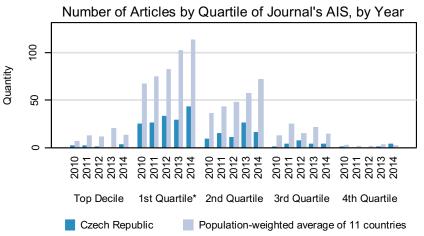
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ENERGY & FUELS





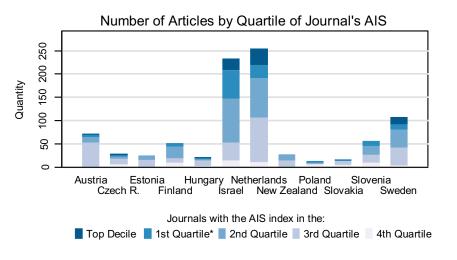


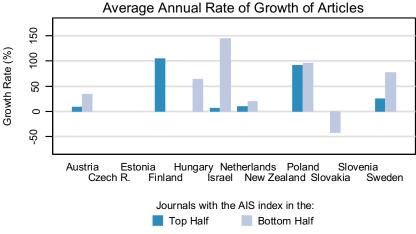


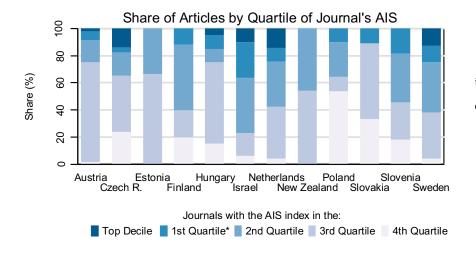
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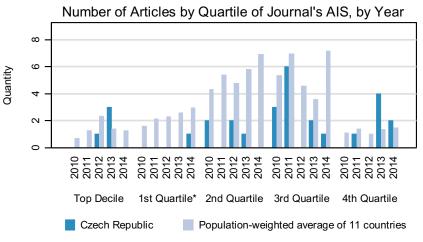
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ENGINEERING, AEROSPACE





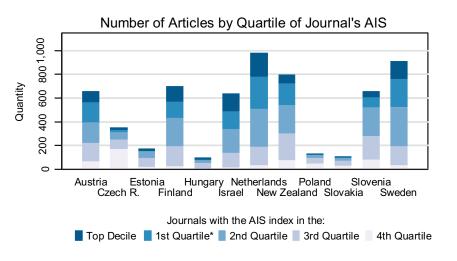


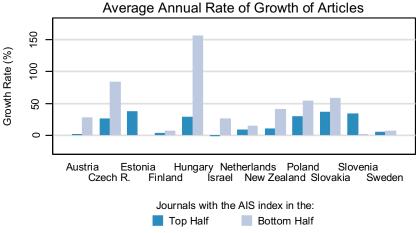


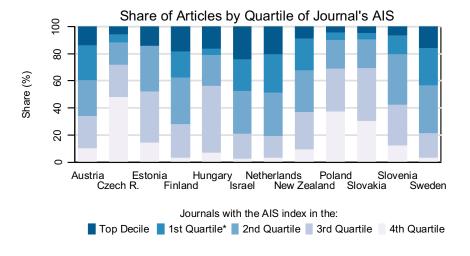
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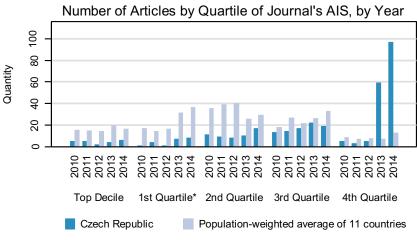
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ENGINEERING, BIOMEDICAL





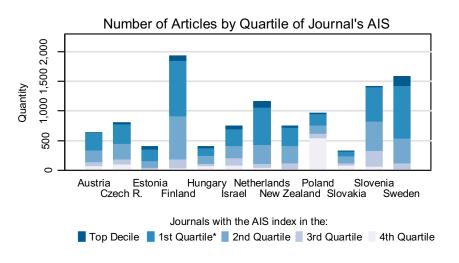


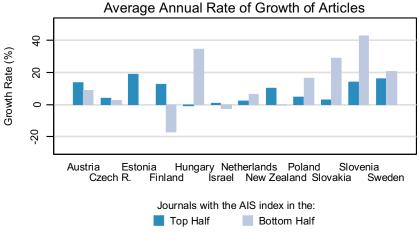


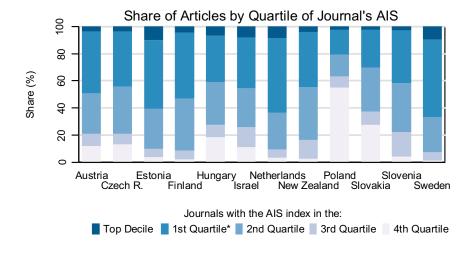
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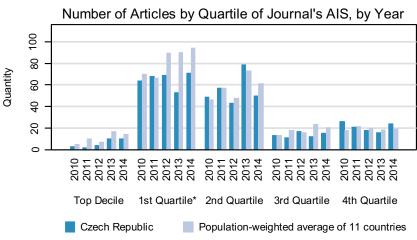
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ENGINEERING, CHEMICAL





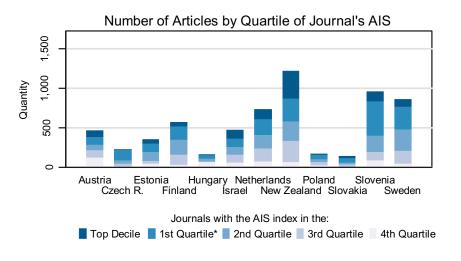


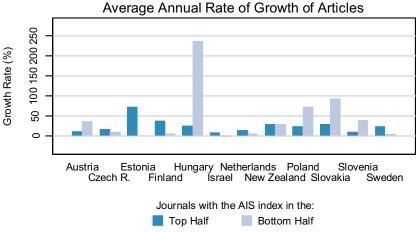


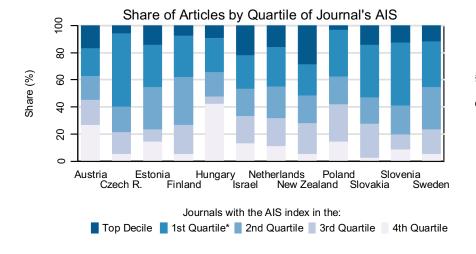
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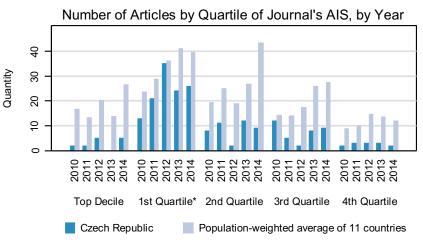
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ENGINEERING, CIVIL





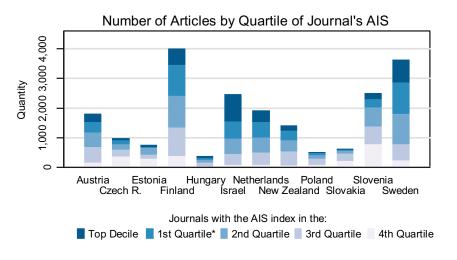


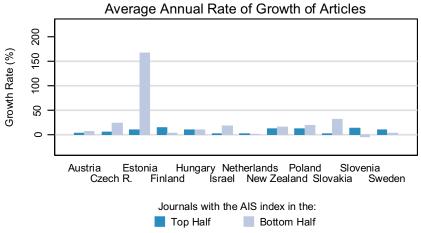


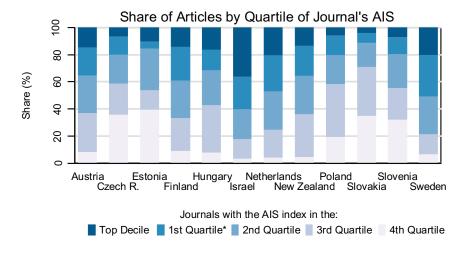
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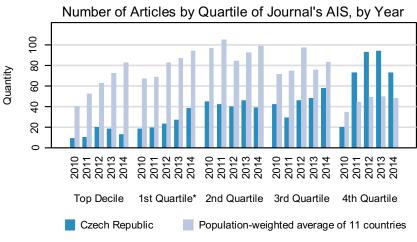
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ENGINEERING, ELECTRICAL & ELECTRONIC





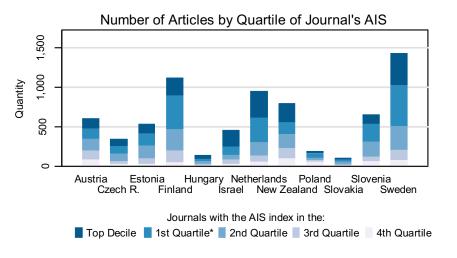


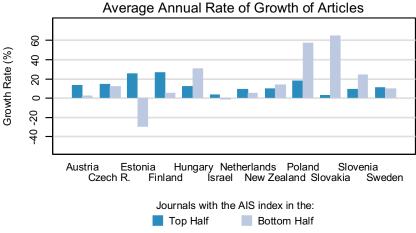


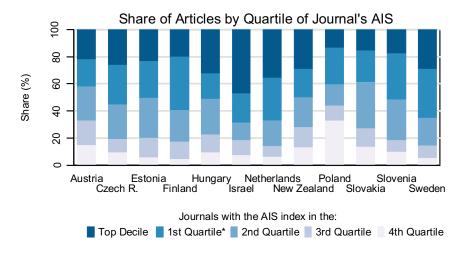
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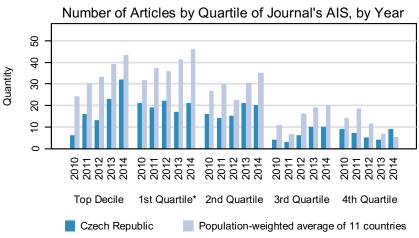
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ENGINEERING, ENVIRONMENTAL





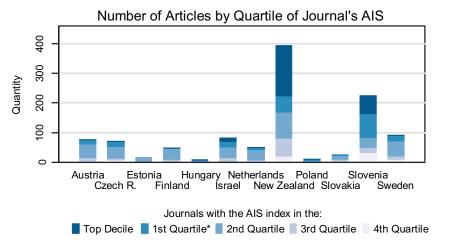


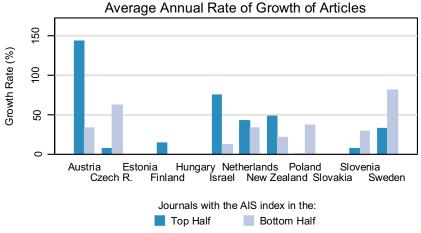


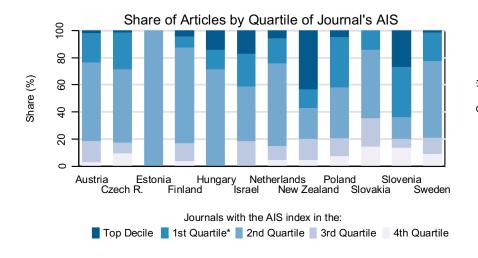
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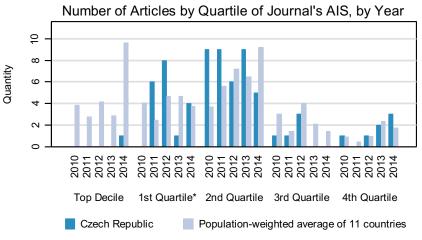
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ENGINEERING, GEOLOGICAL





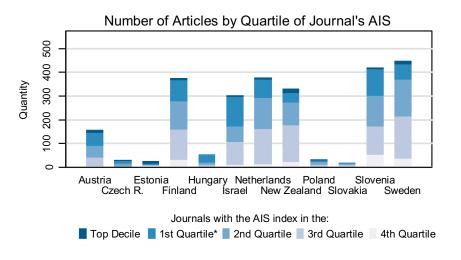


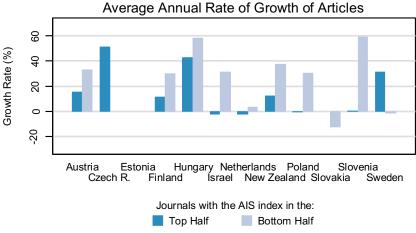


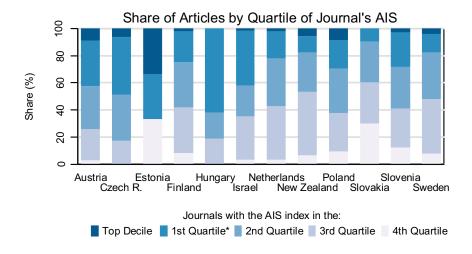
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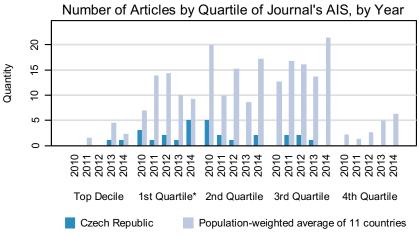
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ENGINEERING, INDUSTRIAL





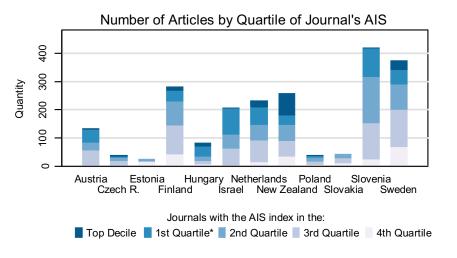


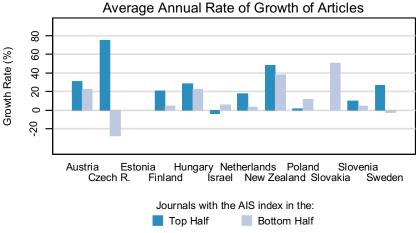


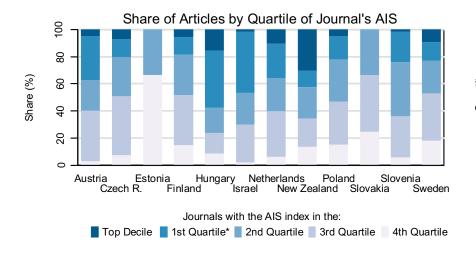
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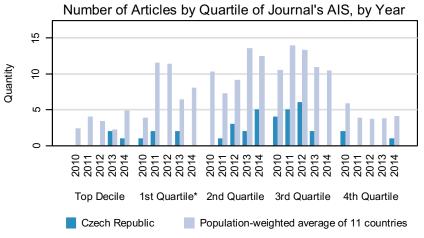
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ENGINEERING, MANUFACTURING





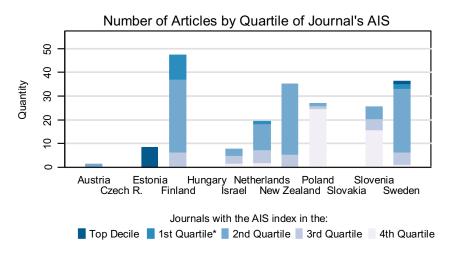


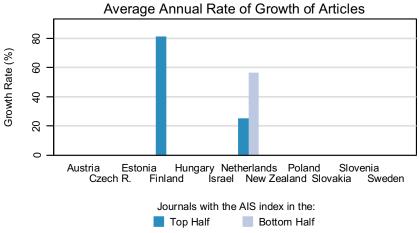


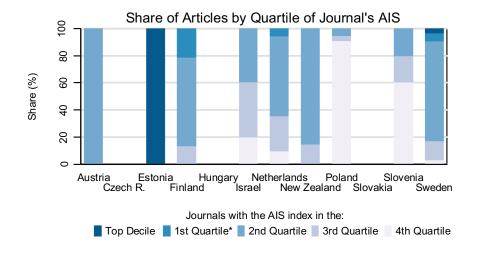
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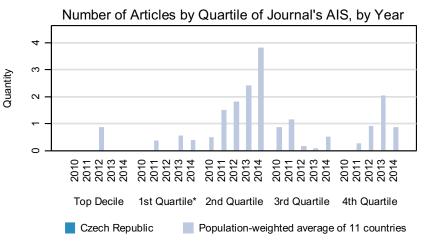
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ENGINEERING, MARINE





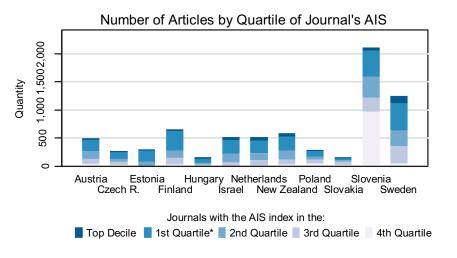


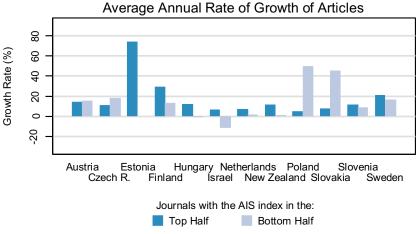


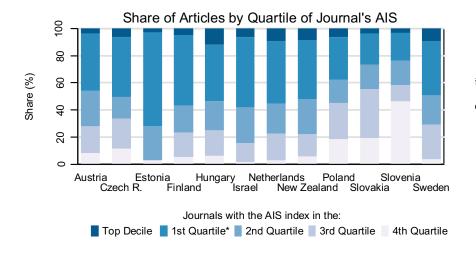
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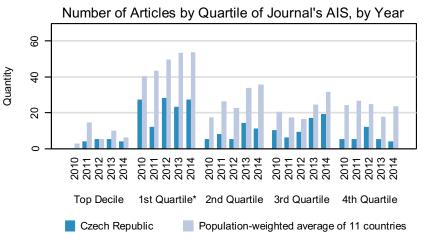
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ENGINEERING, MECHANICAL





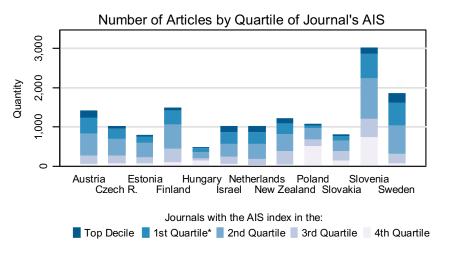


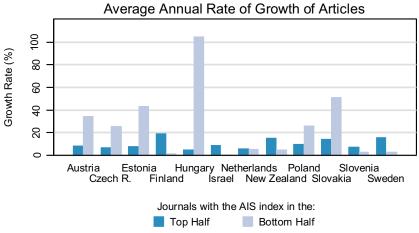


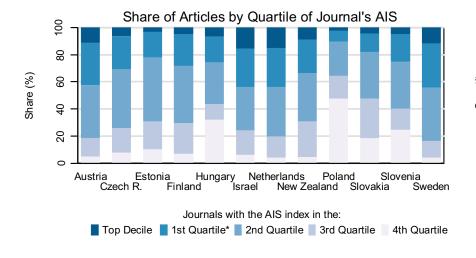
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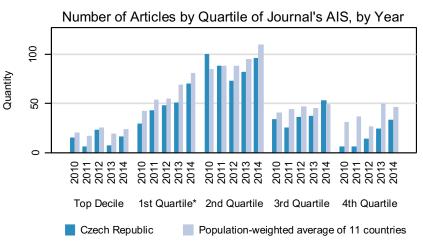
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ENGINEERING, MULTIDISCIPLINARY





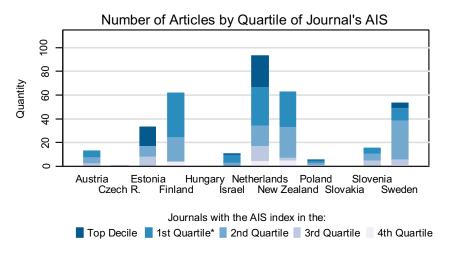


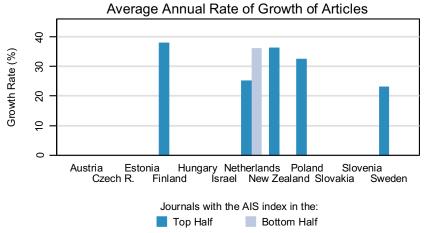


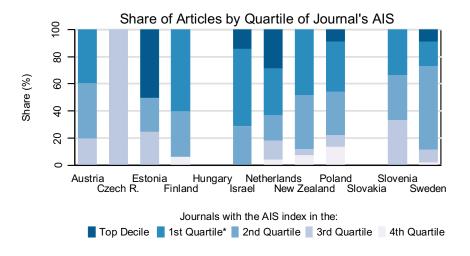
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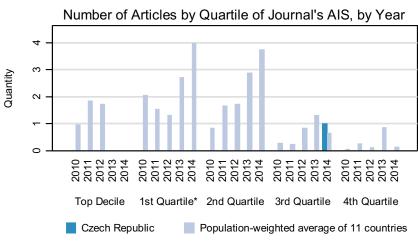
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ENGINEERING, OCEAN





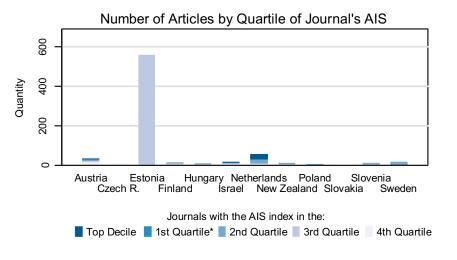


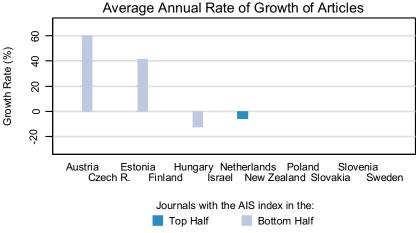


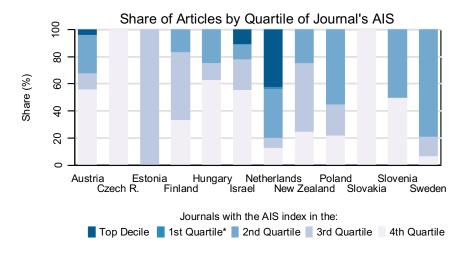
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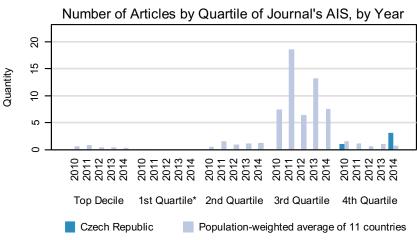
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ENGINEERING, PETROLEUM





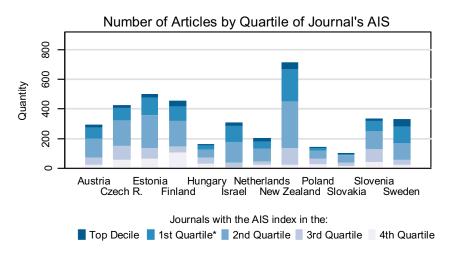


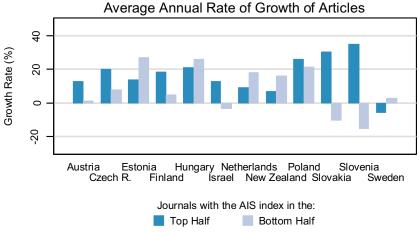


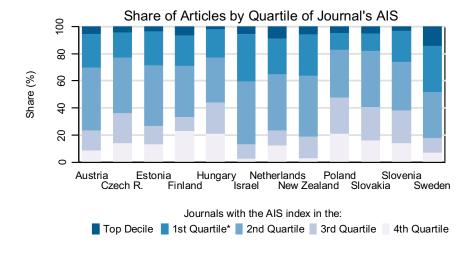
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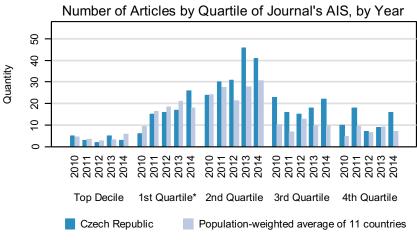
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ENTOMOLOGY





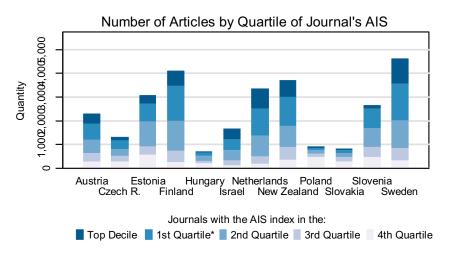


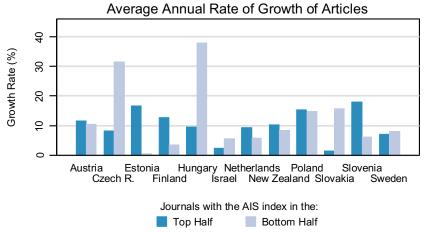


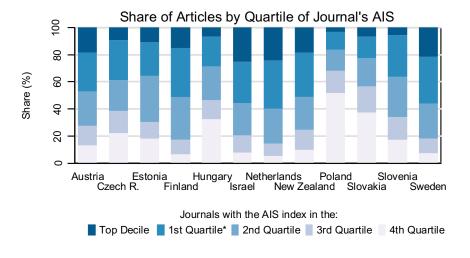
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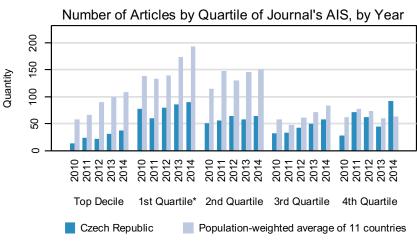
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ENVIRONMENTAL SCIENCES





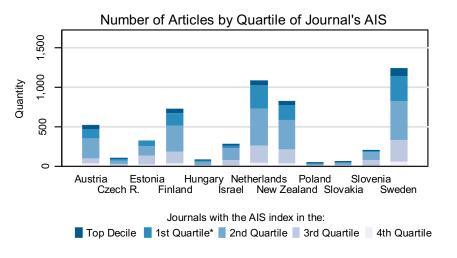


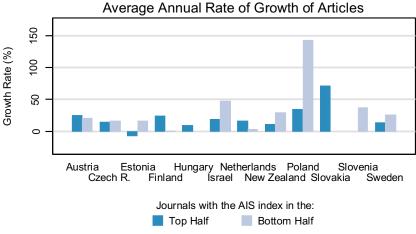


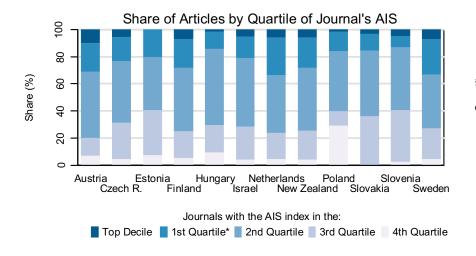
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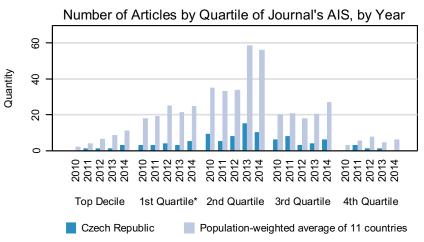
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ENVIRONMENTAL STUDIES





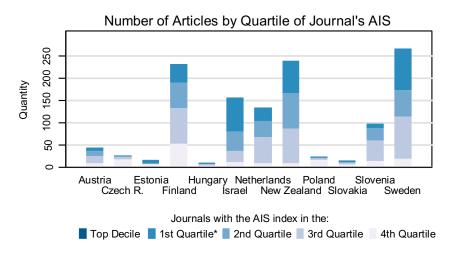


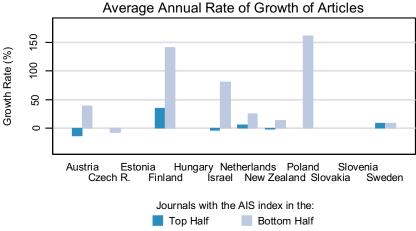


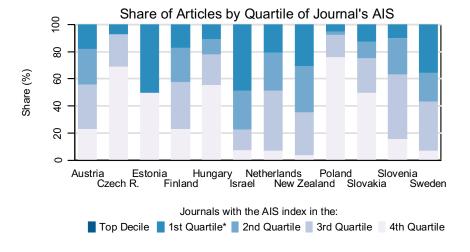
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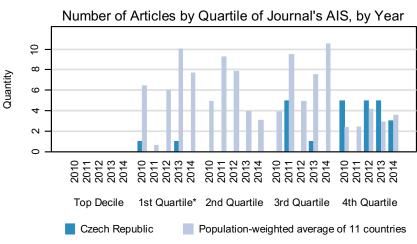
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ERGONOMICS





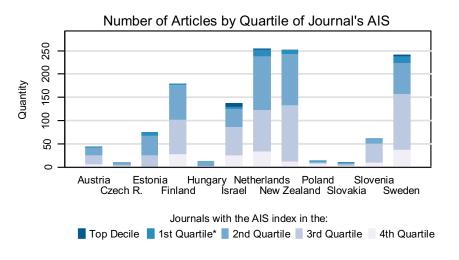


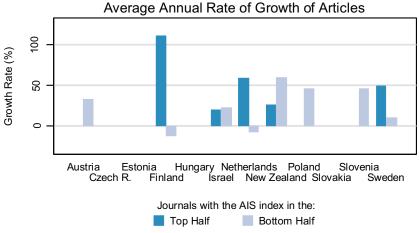


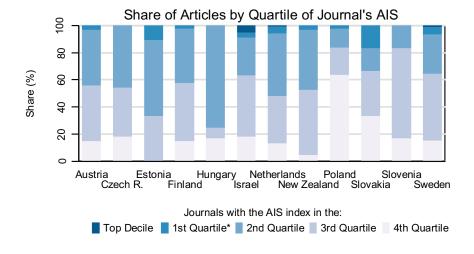
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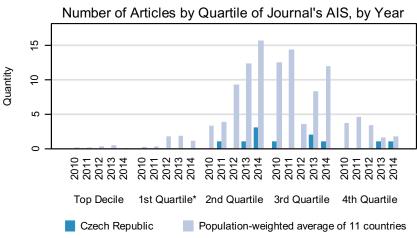
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ETHICS





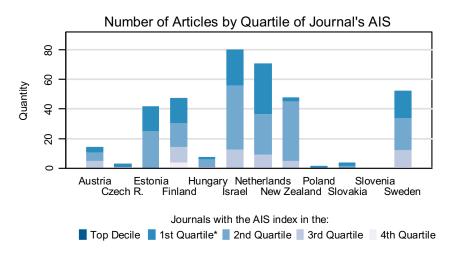


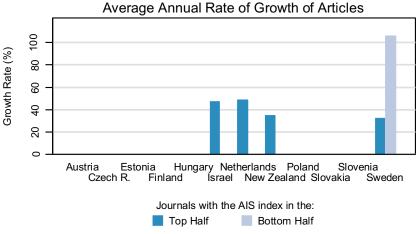


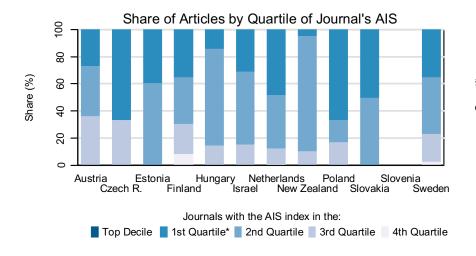
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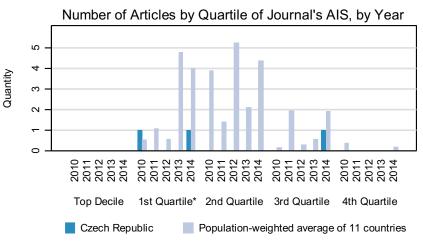
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ETHNIC STUDIES





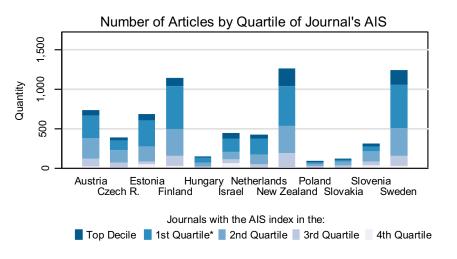


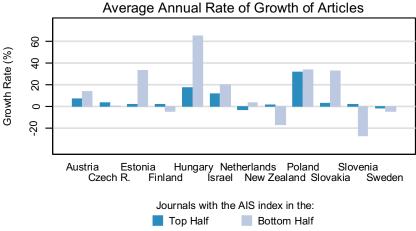


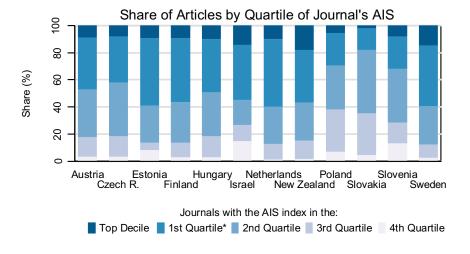
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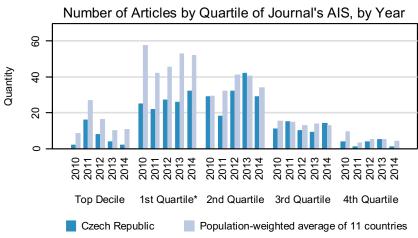
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EVOLUTIONARY BIOLOGY





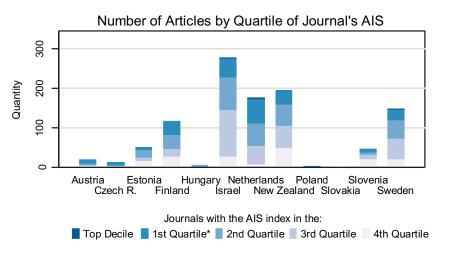


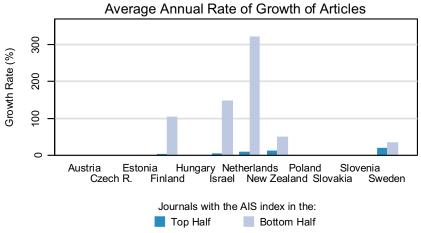


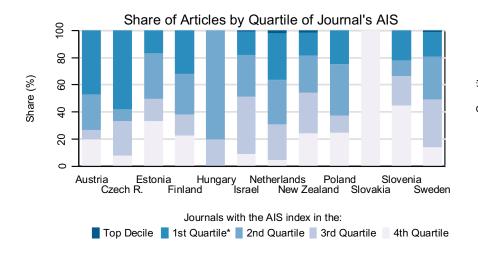
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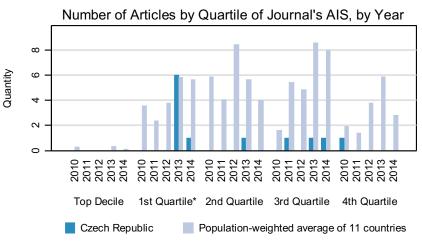
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FAMILY STUDIES





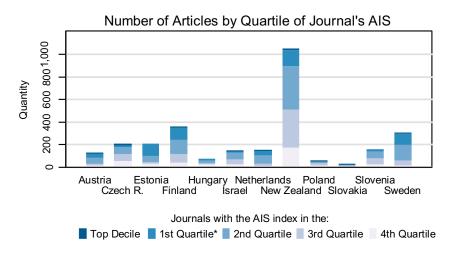


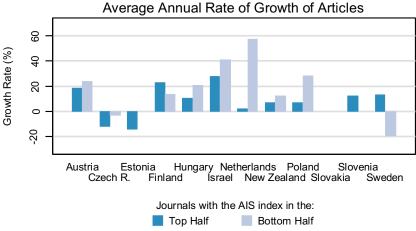


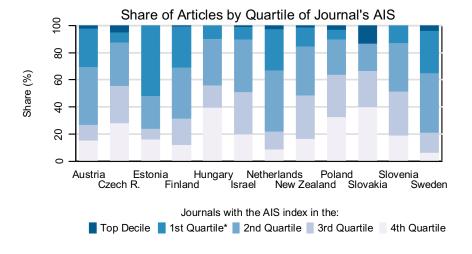
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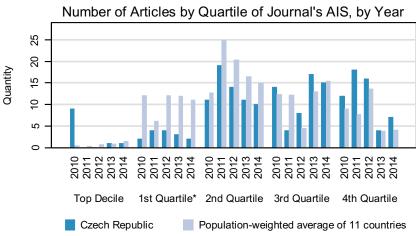
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FISHERIES





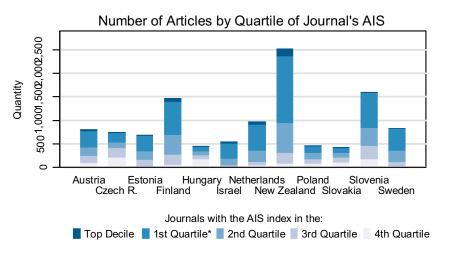


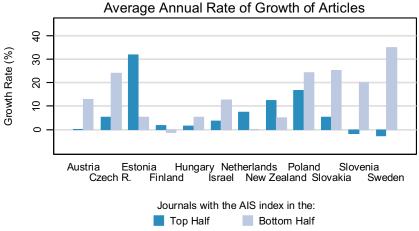


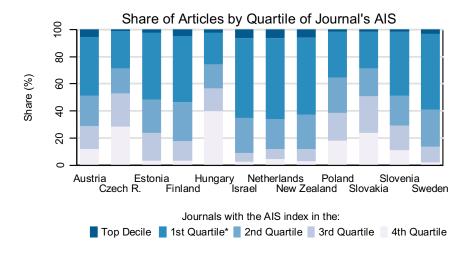
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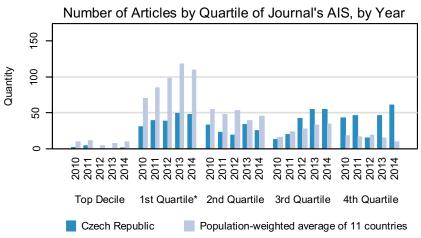
* 1st Quartile excludes the Top Decile

FOOD SCIENCE & TECHNOLOGY





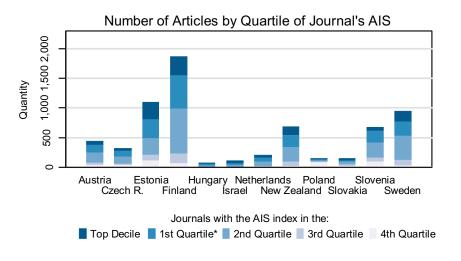


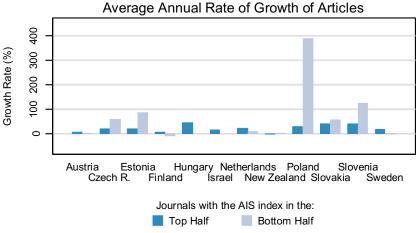


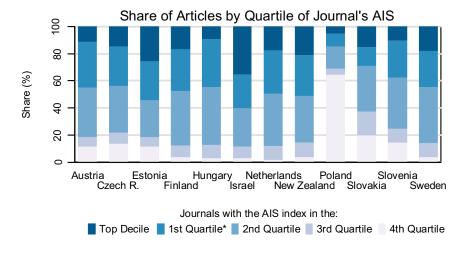
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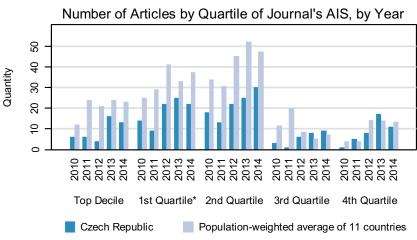
* 1st Quartile excludes the Top Decile

FORESTRY





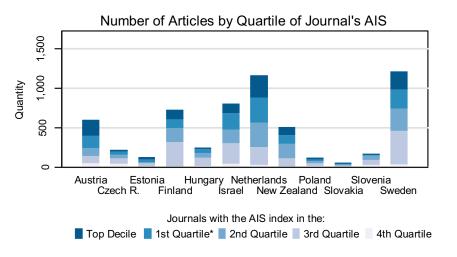


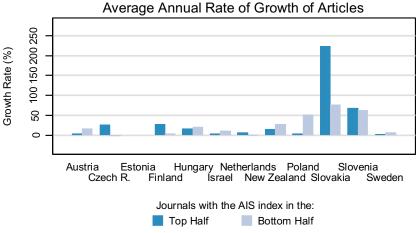


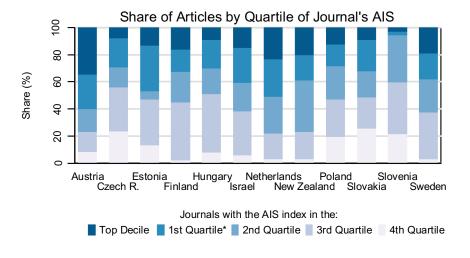
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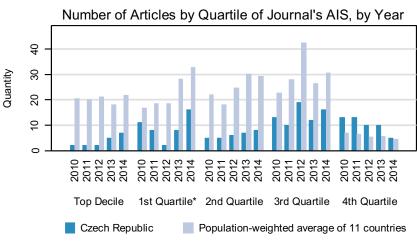
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GASTROENTEROLOGY & HEPATOLOGY





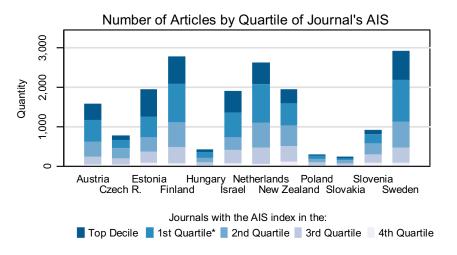


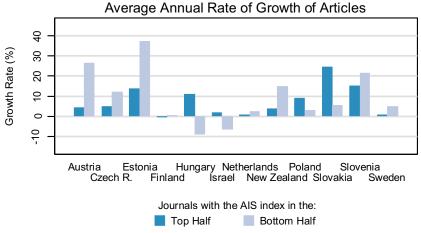


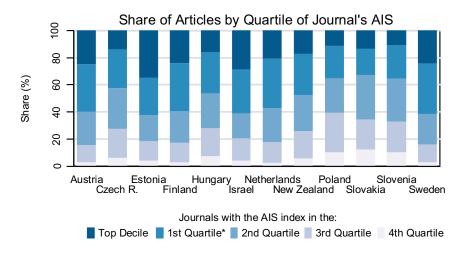
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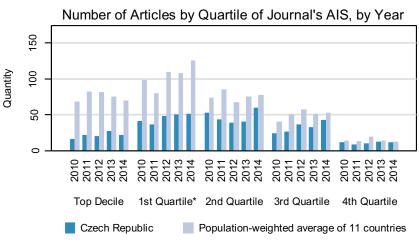
* 1st Quartile excludes the Top Decile

GENETICS & HEREDITY





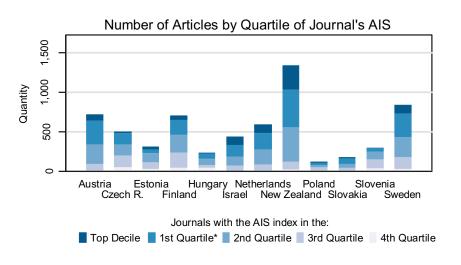


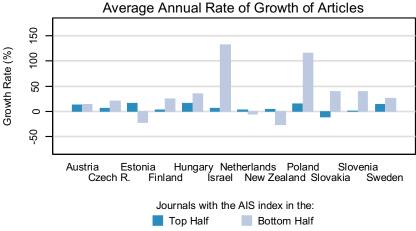


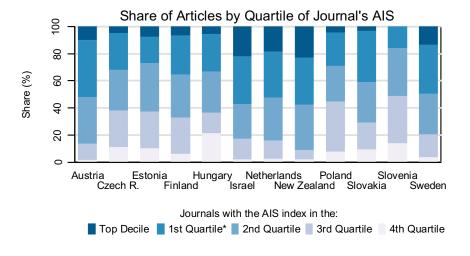
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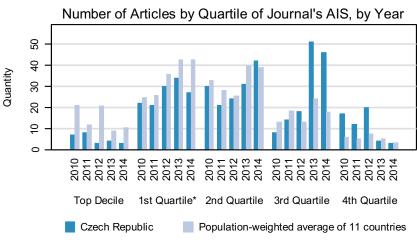
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GEOCHEMISTRY & GEOPHYSICS





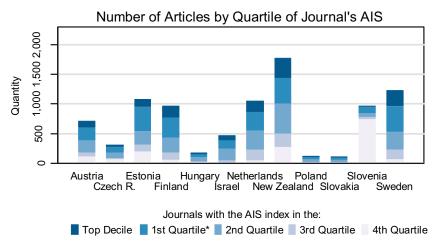


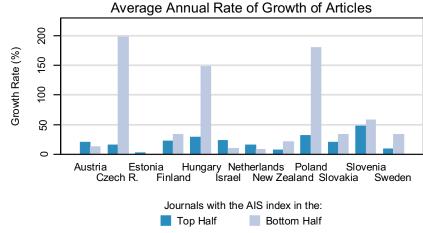


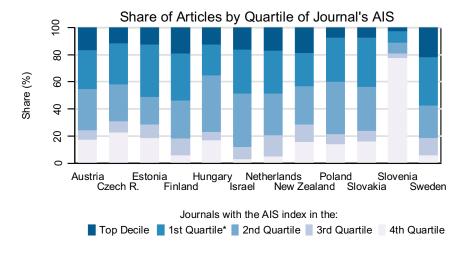
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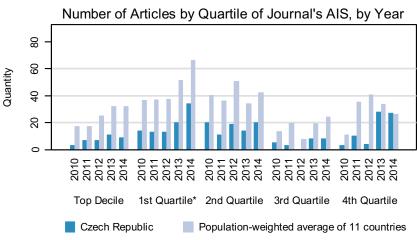
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GEOGRAPHY





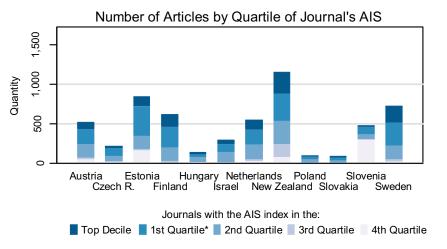


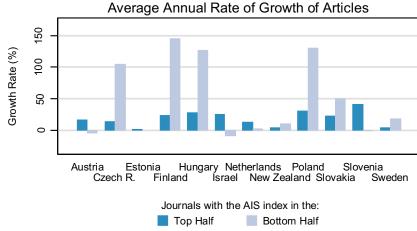


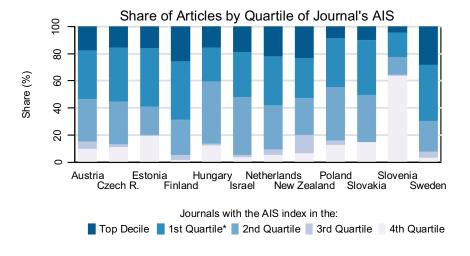
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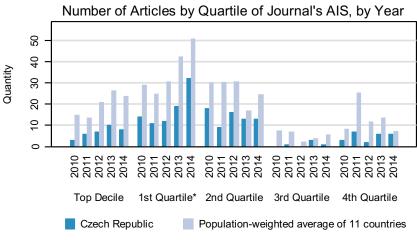
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GEOGRAPHY, PHYSICAL





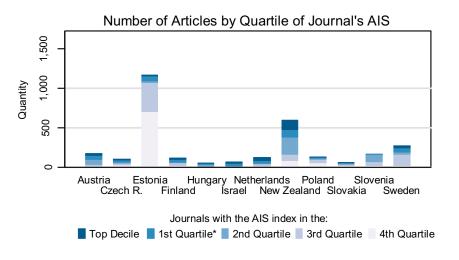


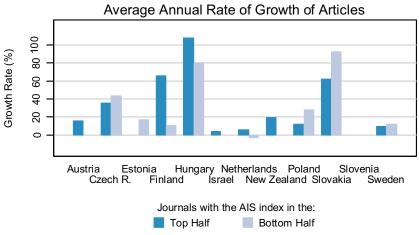


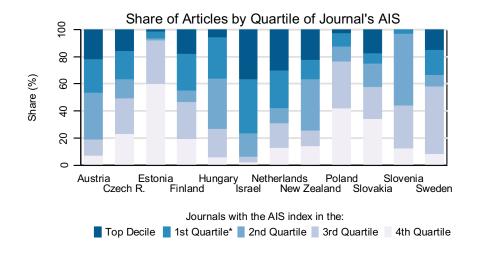
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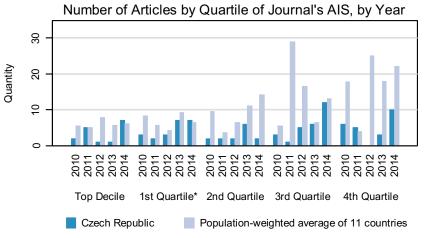
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GEOLOGY





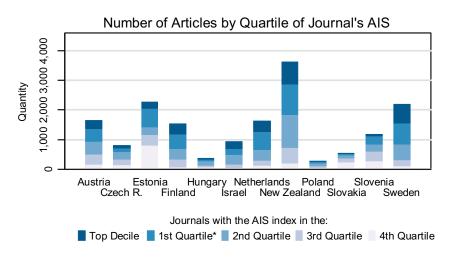


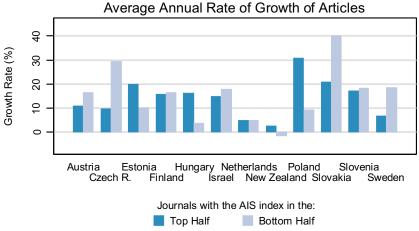


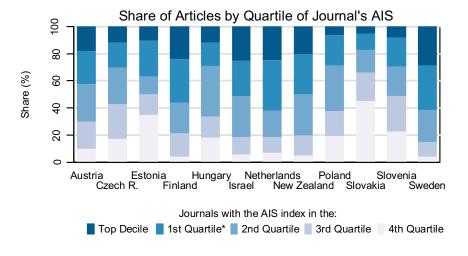
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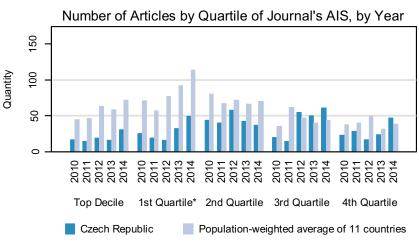
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GEOSCIENCES, MULTIDISCIPLINARY





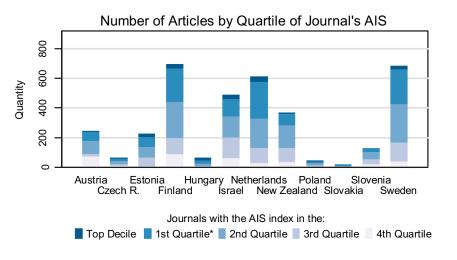


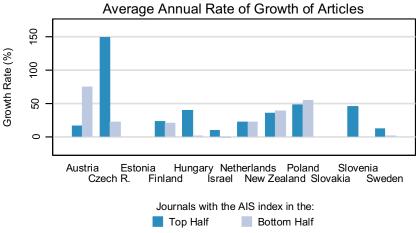


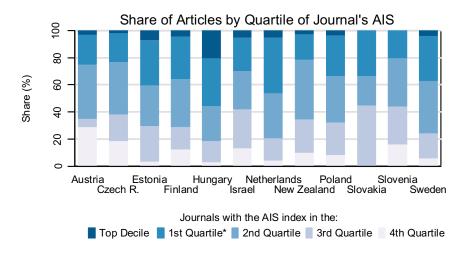
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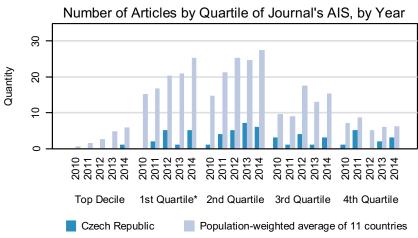
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GERIATRICS & GERONTOLOGY





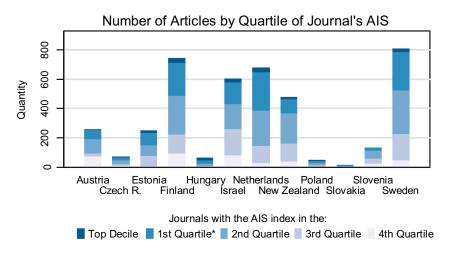


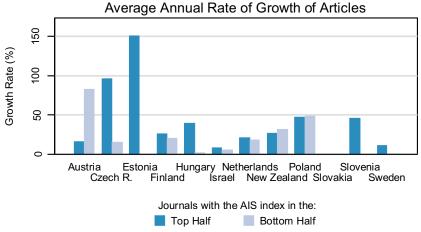


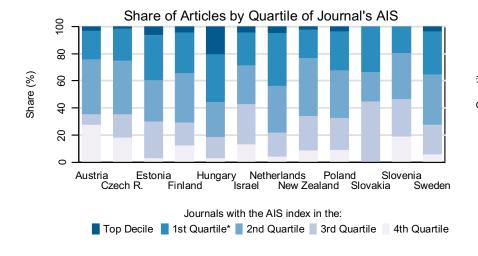
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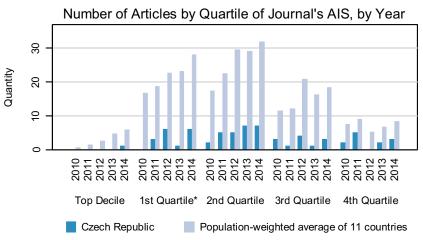
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GERONTOLOGY





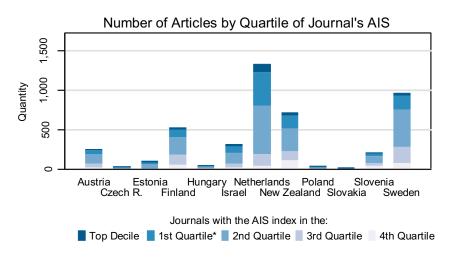


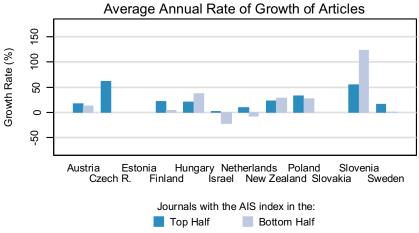


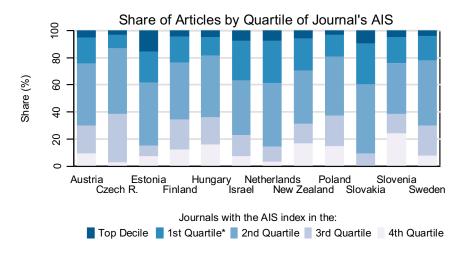
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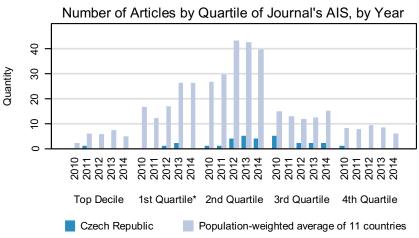
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HEALTH CARE SCIENCES & SERVICES





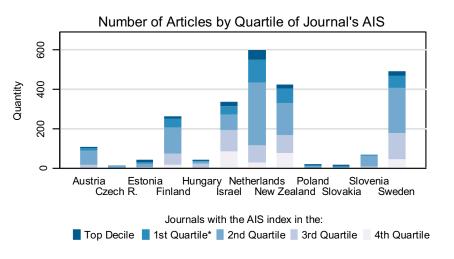


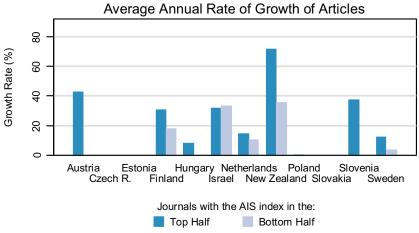


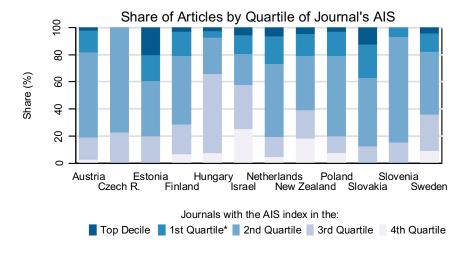
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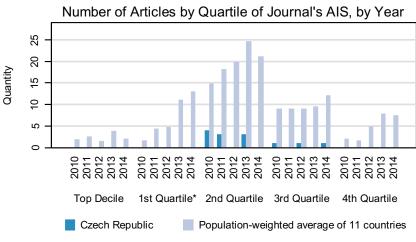
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HEALTH POLICY & SERVICES





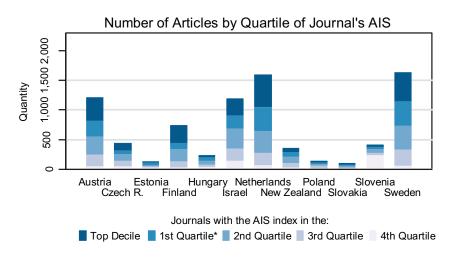


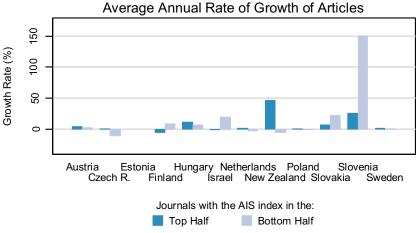


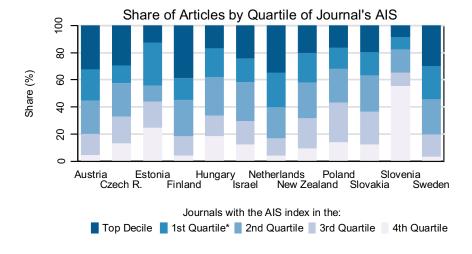
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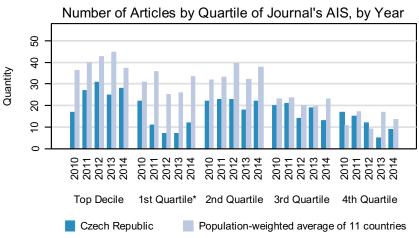
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HEMATOLOGY





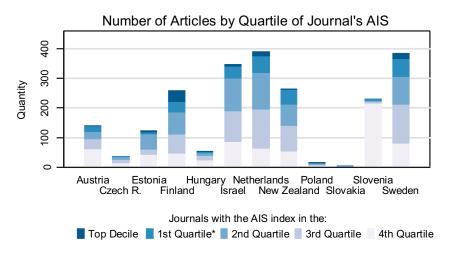


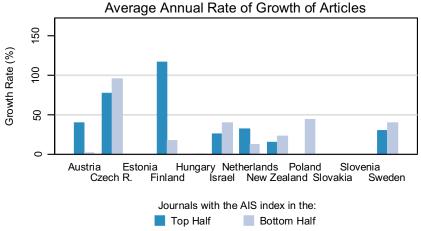


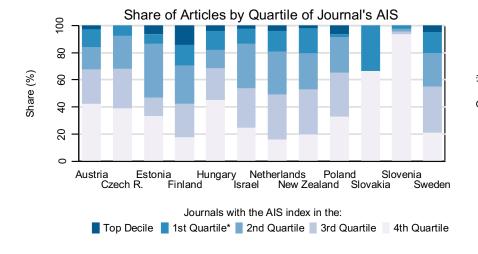
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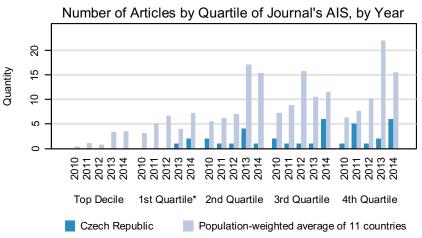
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HISTORY





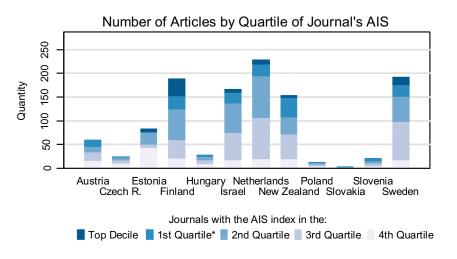


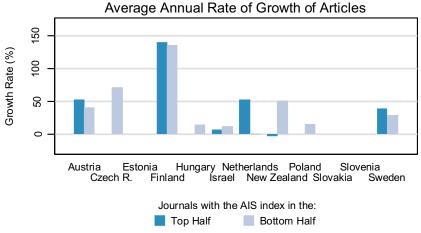


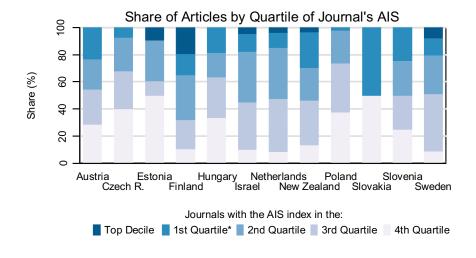
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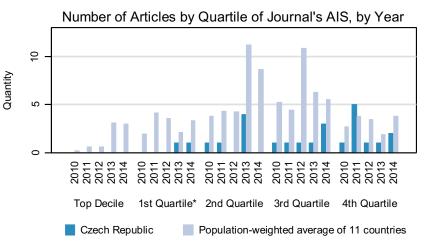
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HISTORY & PHILOSOPHY OF SCIENCE





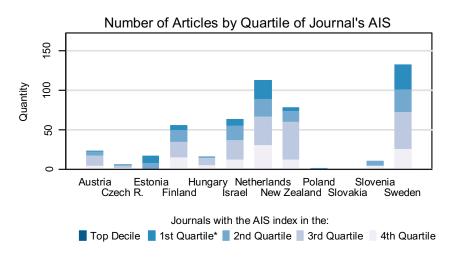


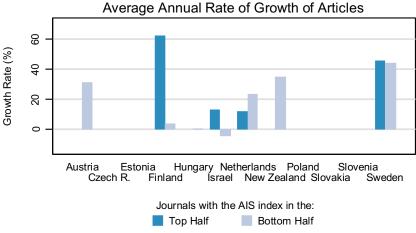


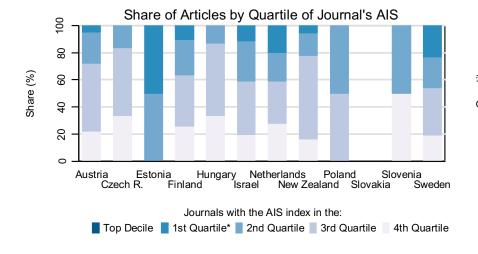
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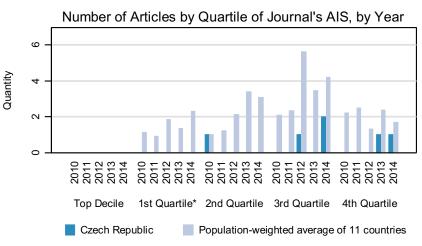
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HISTORY OF SOCIAL SCIENCES





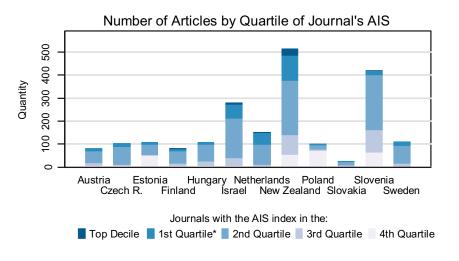


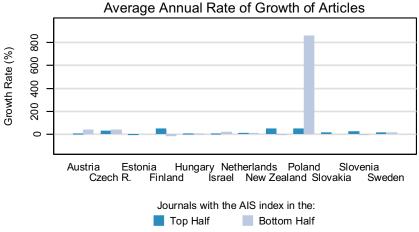


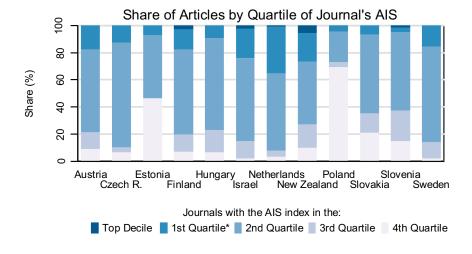
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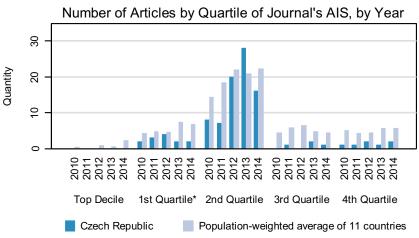
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HORTICULTURE





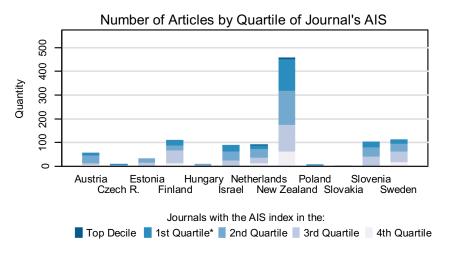


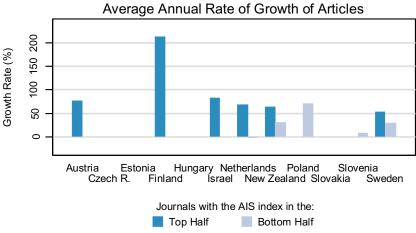


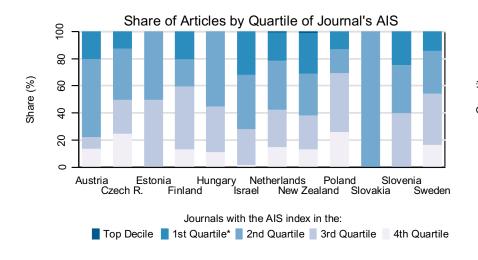
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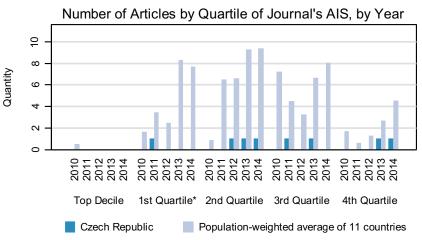
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HOSPITALITY, LEISURE, SPORT & TOURISM





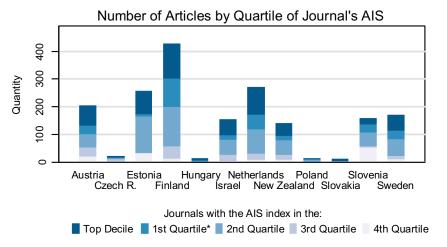


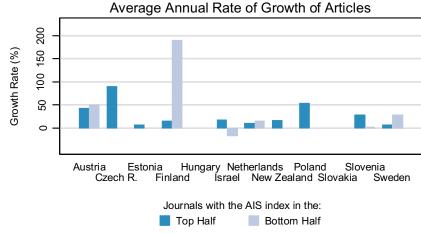


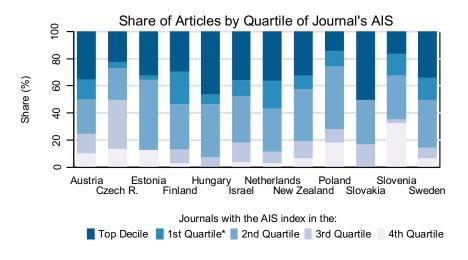
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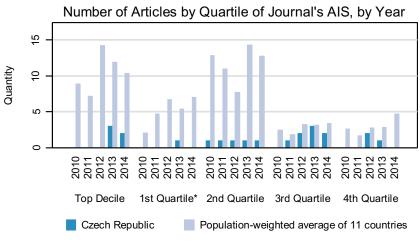
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IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY





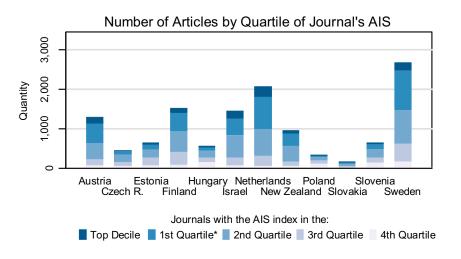


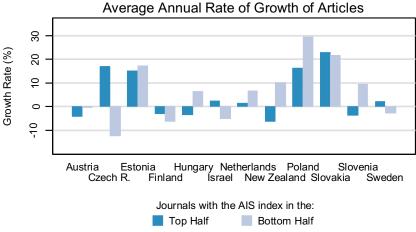


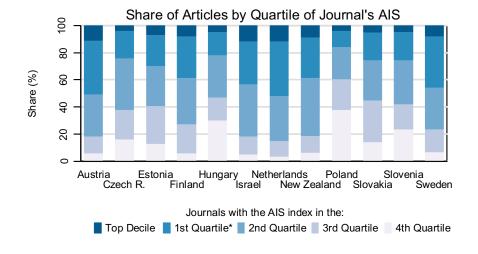
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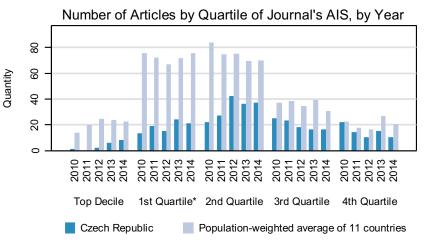
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IMMUNOLOGY





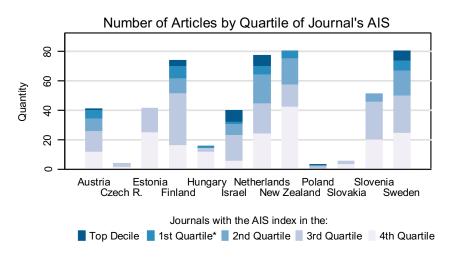


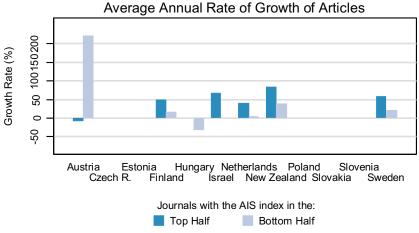


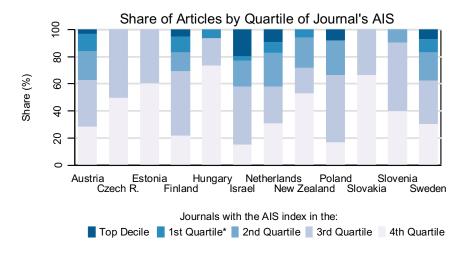
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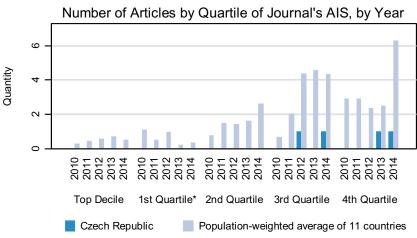
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INDUSTRIAL RELATIONS & LABOR





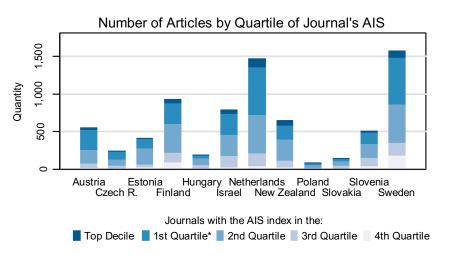


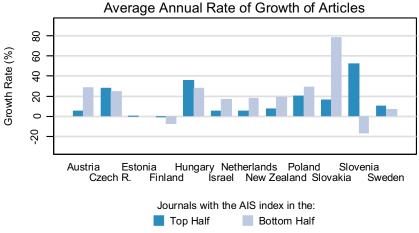


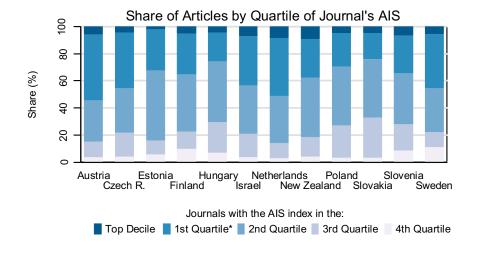
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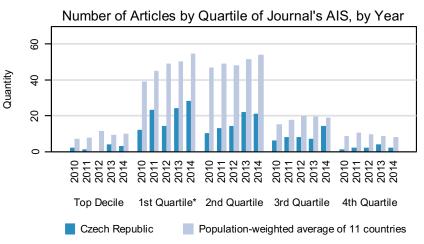
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INFECTIOUS DISEASES





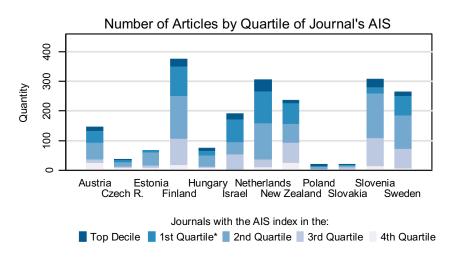


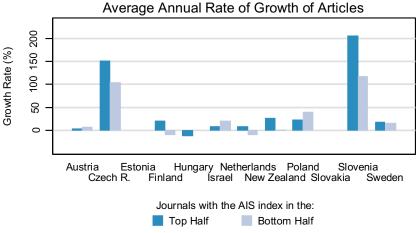


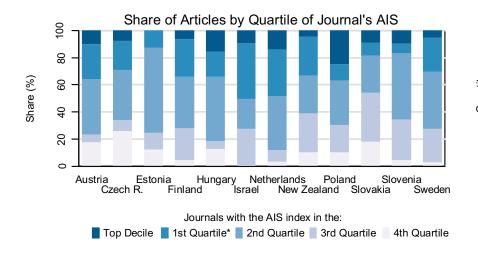
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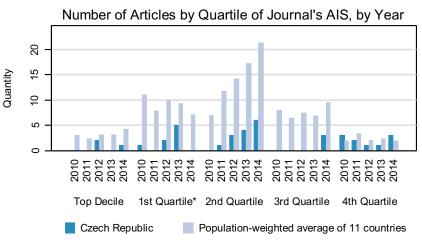
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INFORMATION SCIENCE & LIBRARY SCIENCE





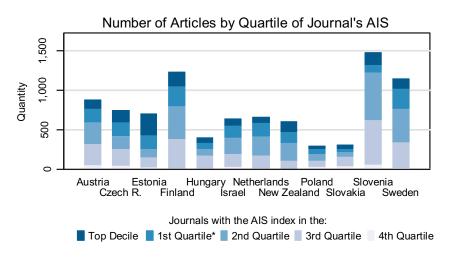


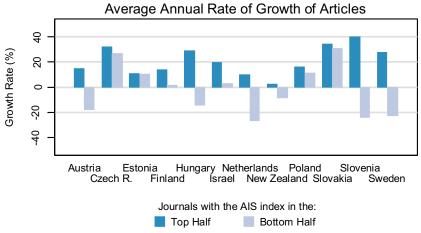


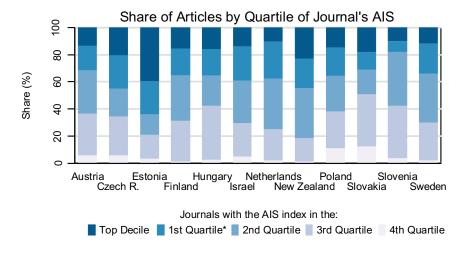
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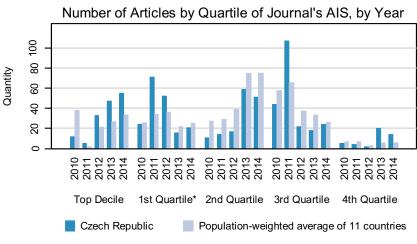
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INSTRUMENTS & INSTRUMENTATION





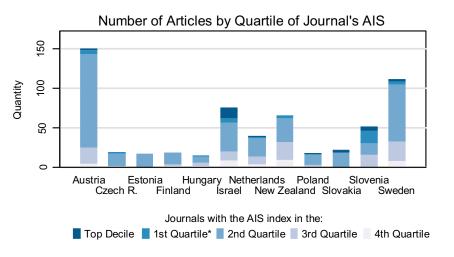


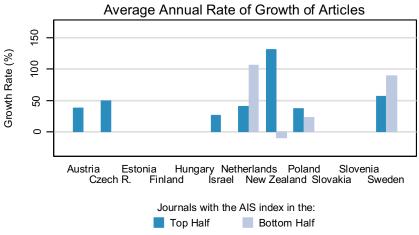


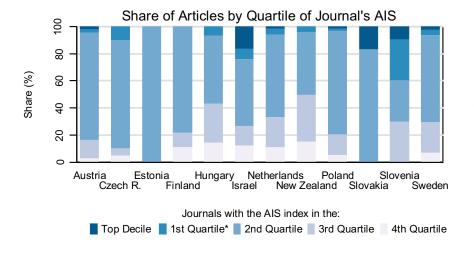
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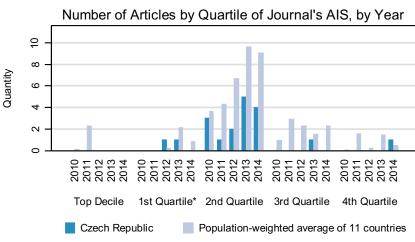
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INTEGRATIVE & COMPLEMENTARY MEDICINE





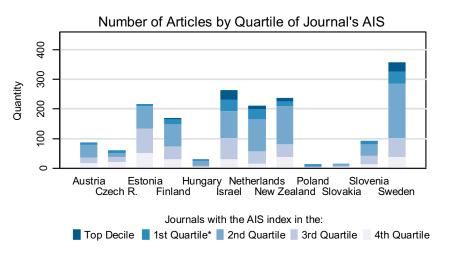


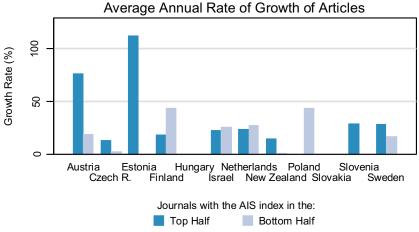


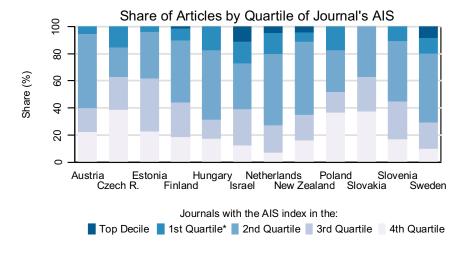
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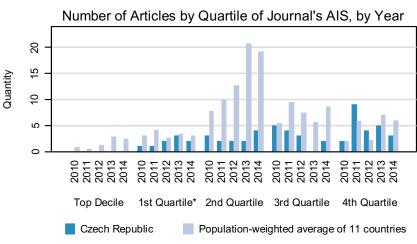
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INTERNATIONAL RELATIONS





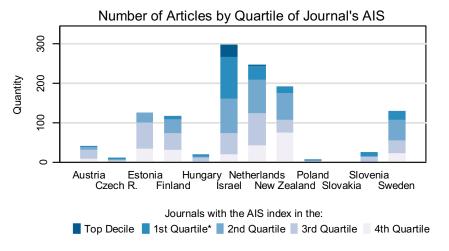


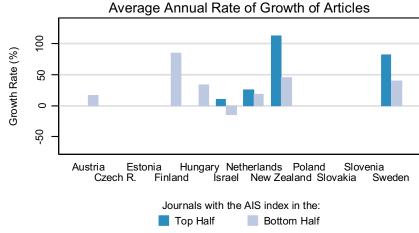


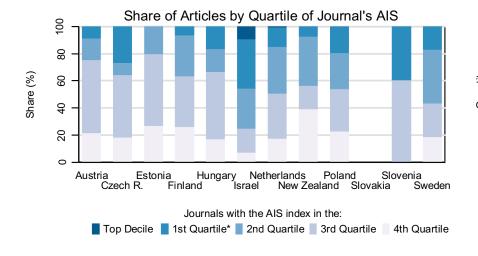
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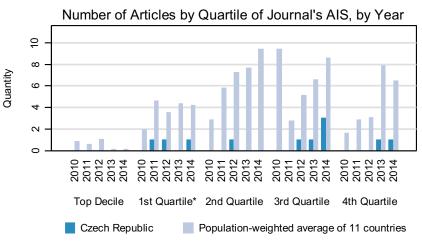
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LAW





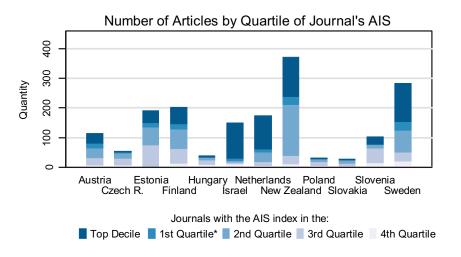


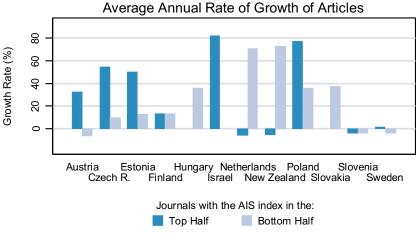


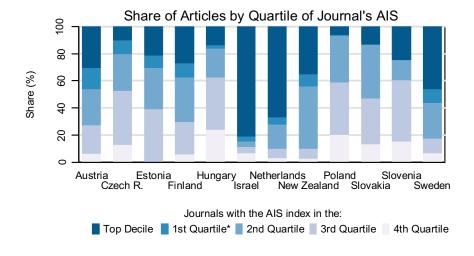
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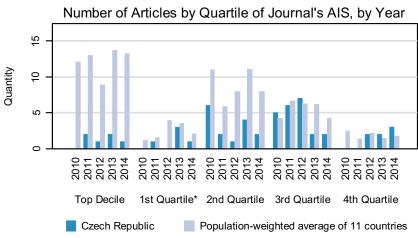
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LIMNOLOGY





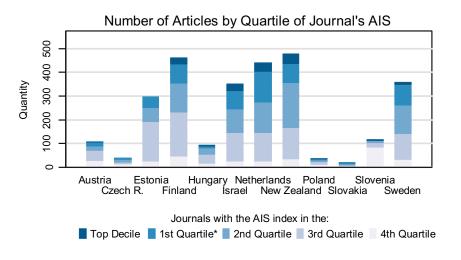


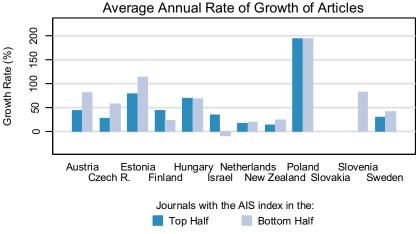


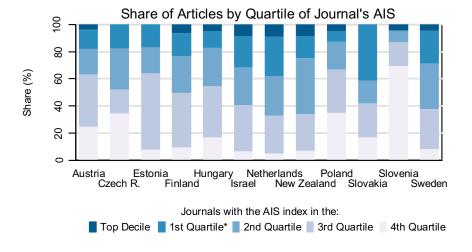
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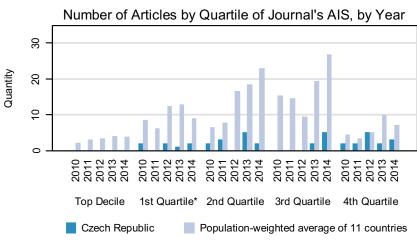
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LINGUISTICS





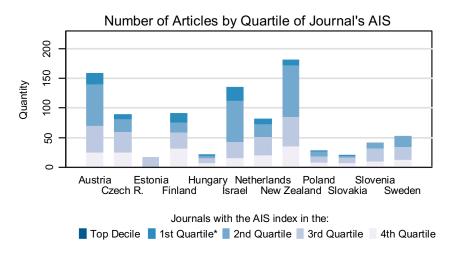


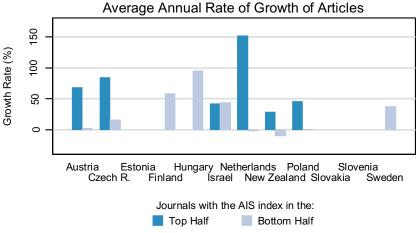


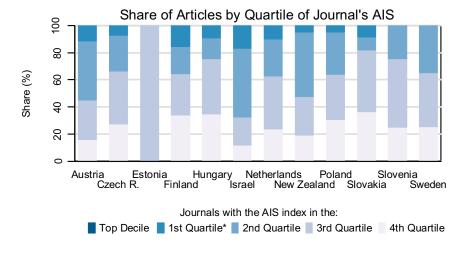
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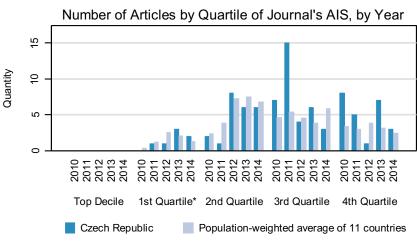
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LOGIC





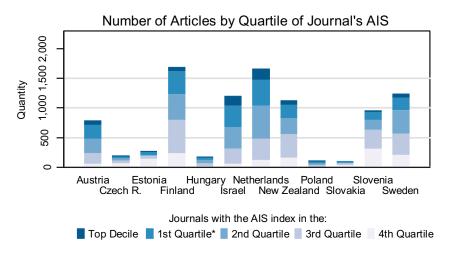


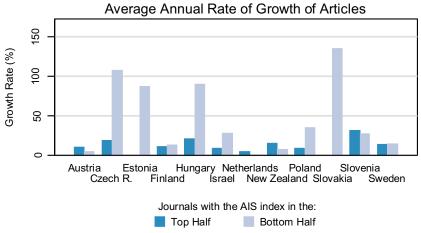


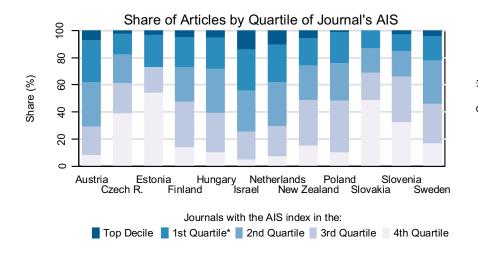
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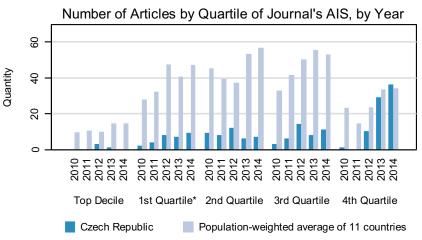
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MANAGEMENT





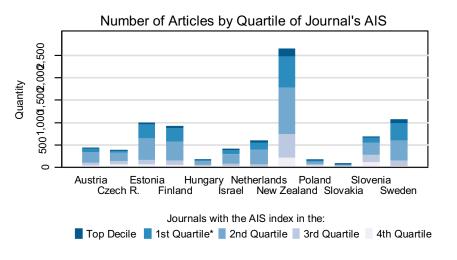


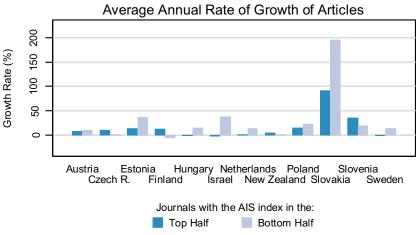


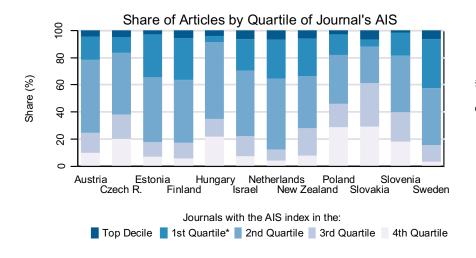
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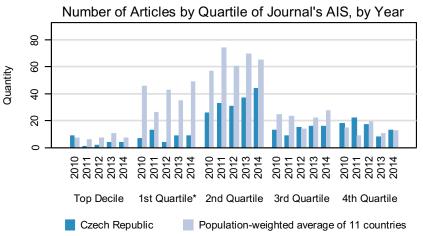
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MARINE & FRESHWATER BIOLOGY





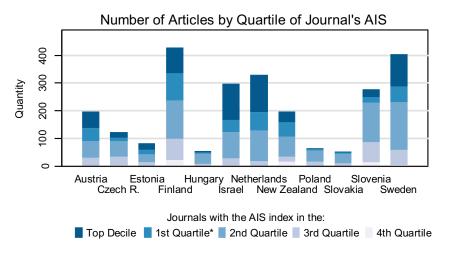


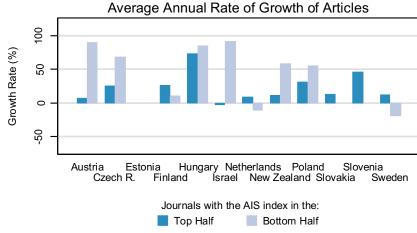


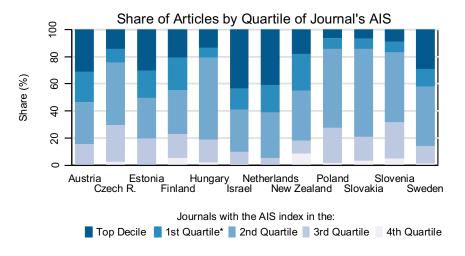
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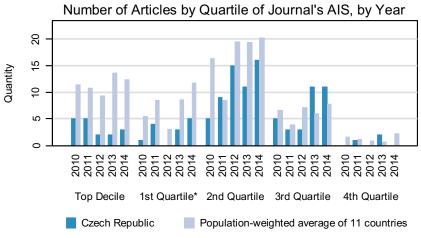
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MATERIALS SCIENCE, BIOMATERIALS





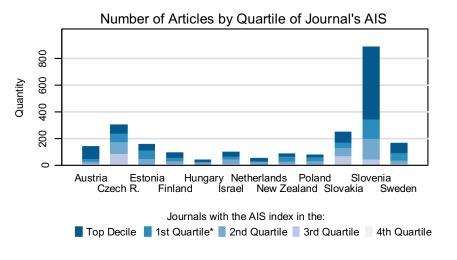


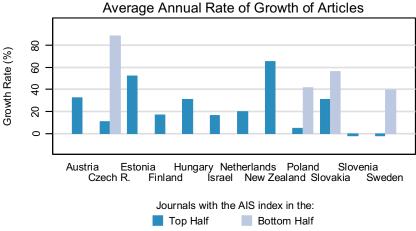


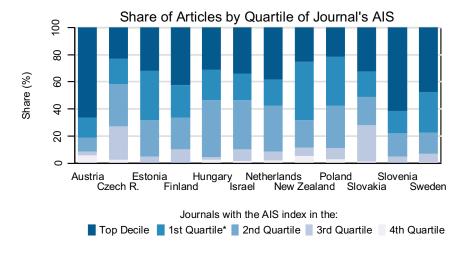
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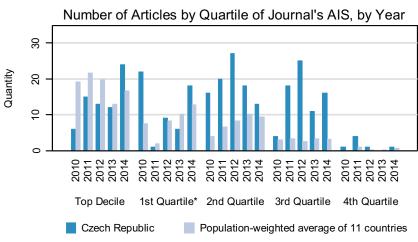
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MATERIALS SCIENCE, CERAMICS





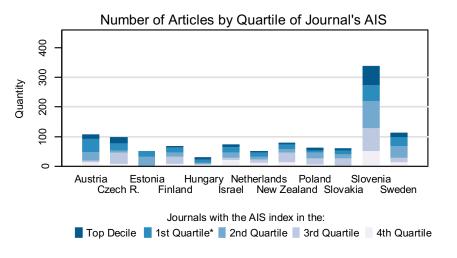


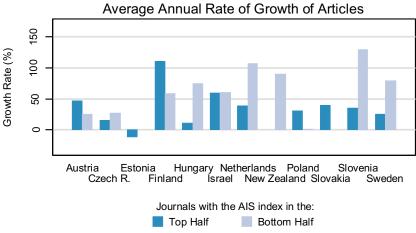


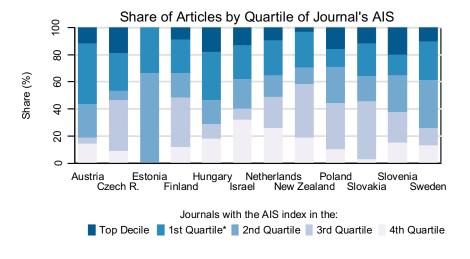
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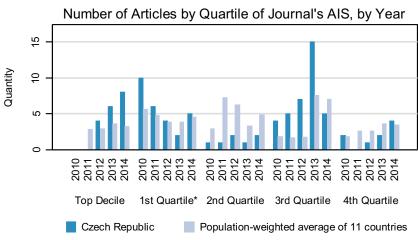
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MATERIALS SCIENCE, CHARACTERIZATION & TESTING





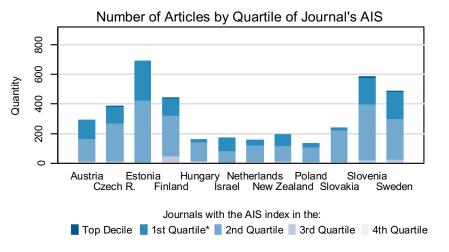


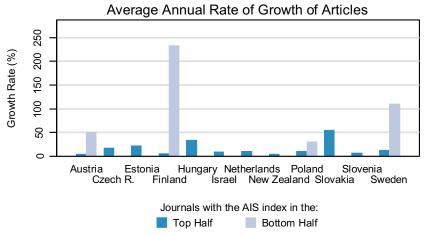


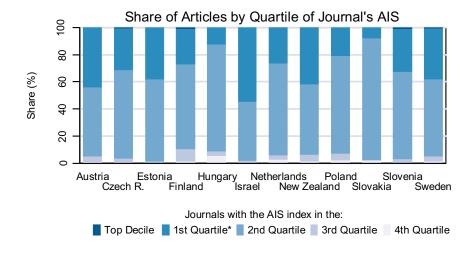
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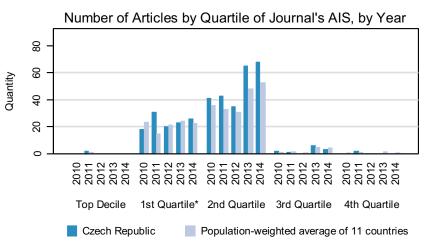
* 1st Quartile excludes the Top Decile

MATERIALS SCIENCE, COATINGS & FILMS





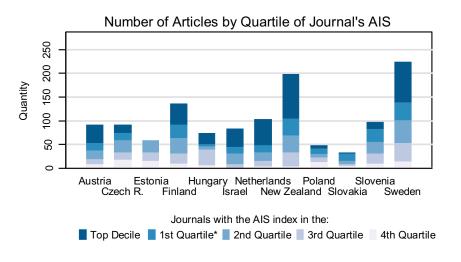


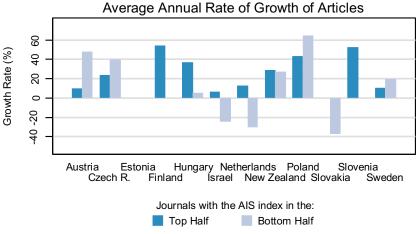


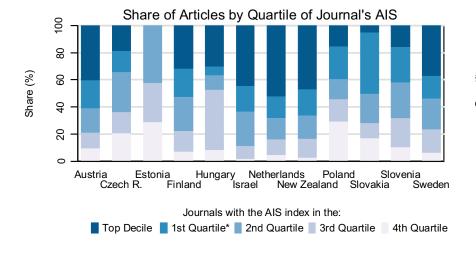
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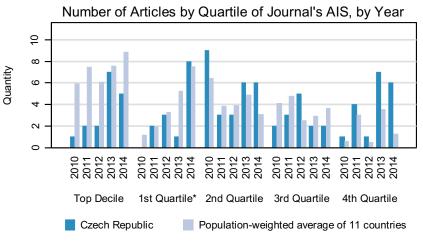
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MATERIALS SCIENCE, COMPOSITES







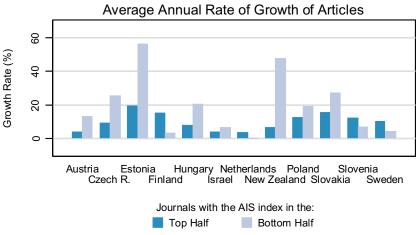


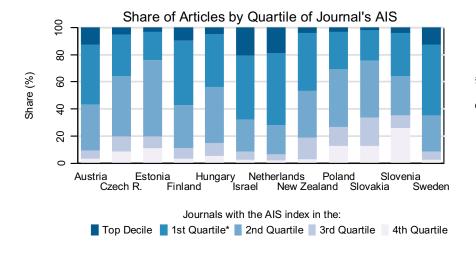
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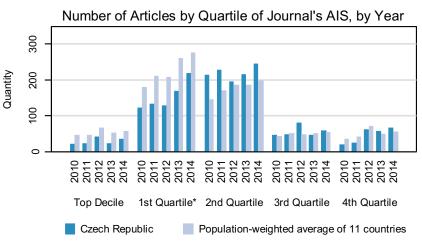
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MATERIALS SCIENCE, MULTIDISCIPLINARY





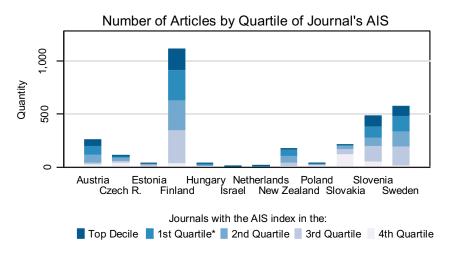


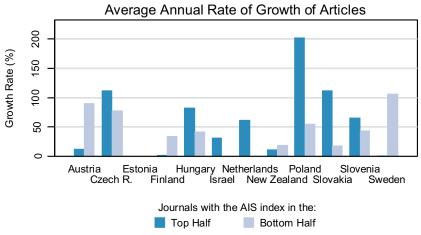


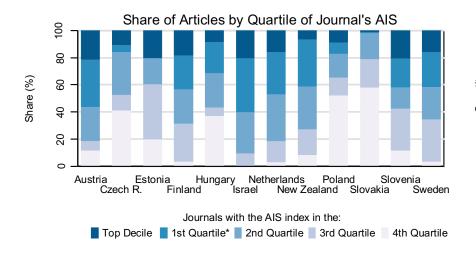
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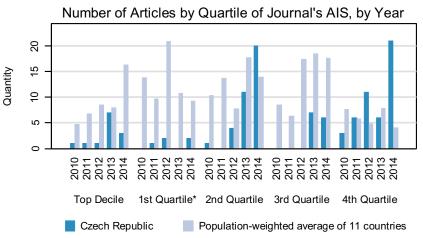
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MATERIALS SCIENCE, PAPER & WOOD





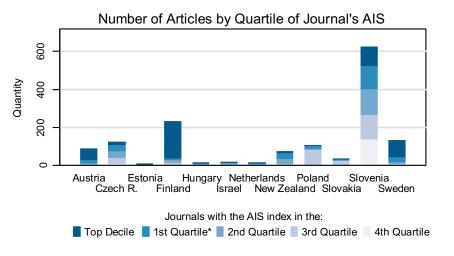


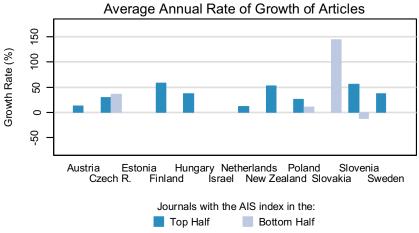


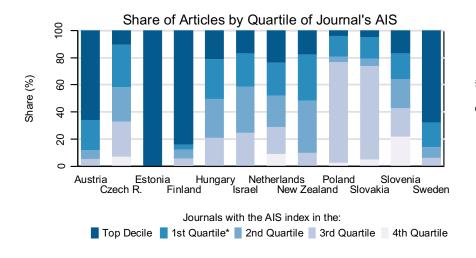
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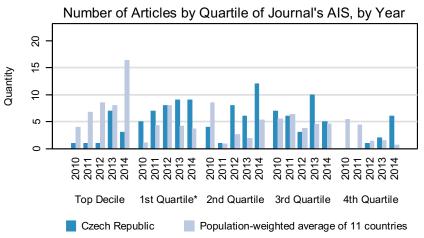
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MATERIALS SCIENCE, TEXTILES





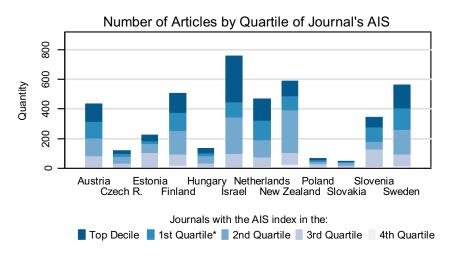


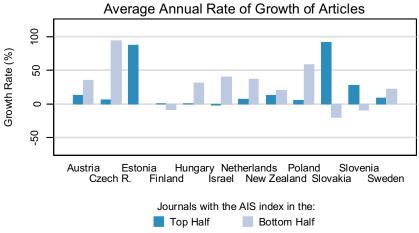


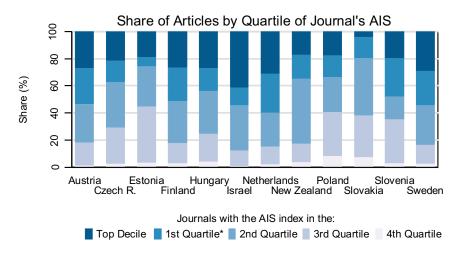
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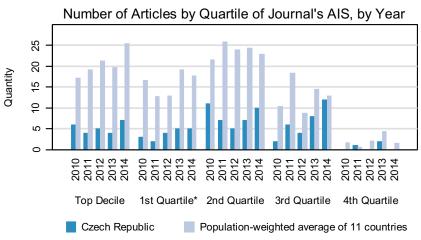
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MATHEMATICAL & COMPUTATIONAL BIOLOGY





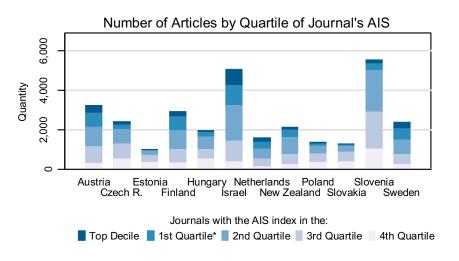


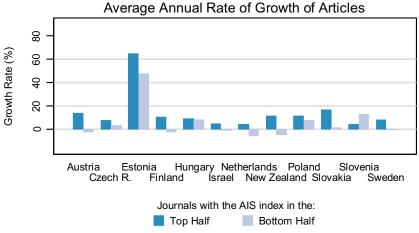


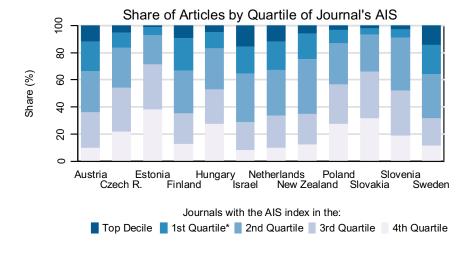
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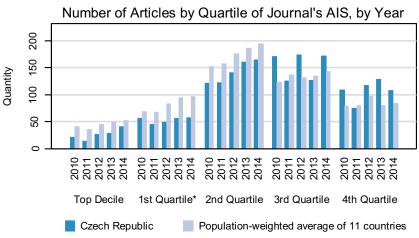
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MATHEMATICS





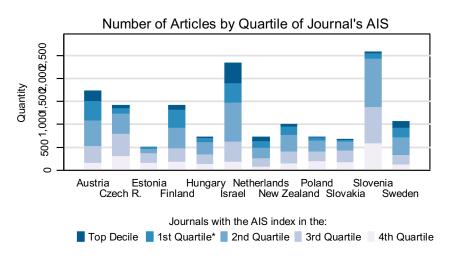


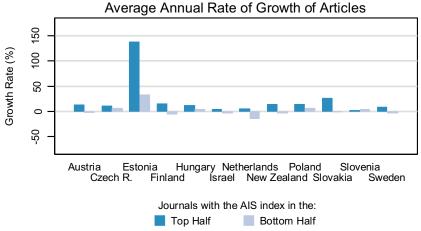


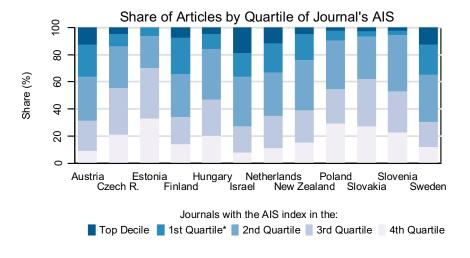
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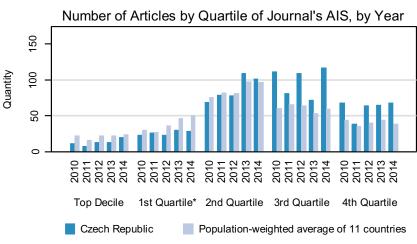
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MATHEMATICS, APPLIED





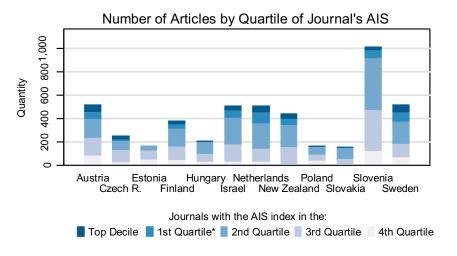


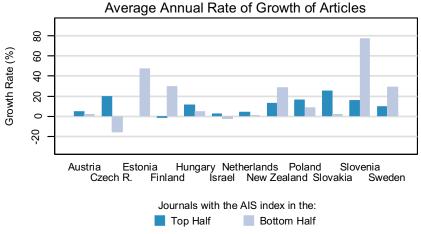


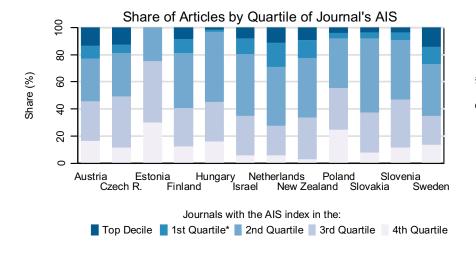
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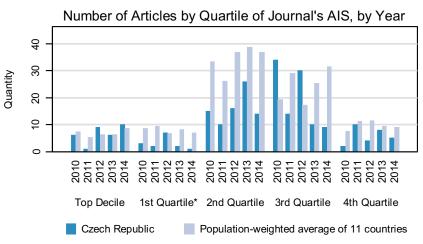
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MATHEMATICS, INTERDISCIPLINARY APPLICATIONS





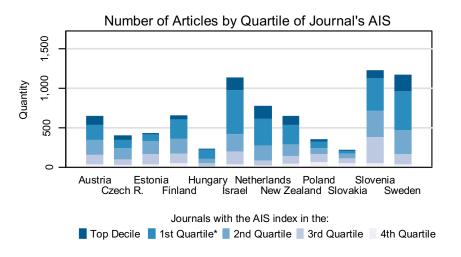


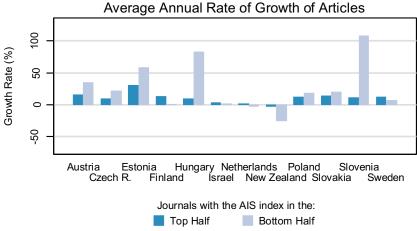


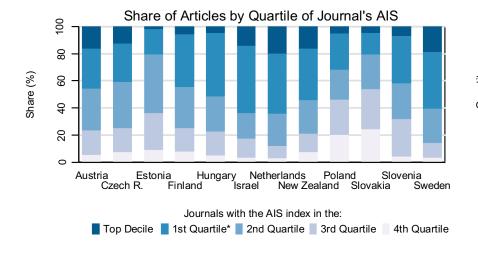
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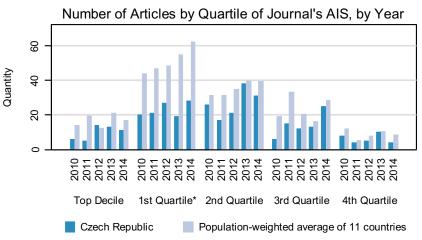
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MECHANICS





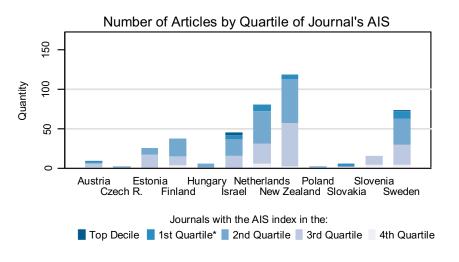


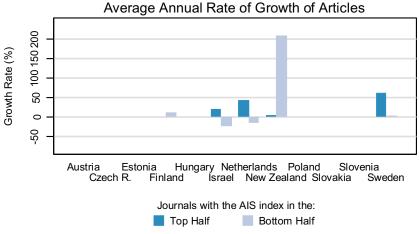


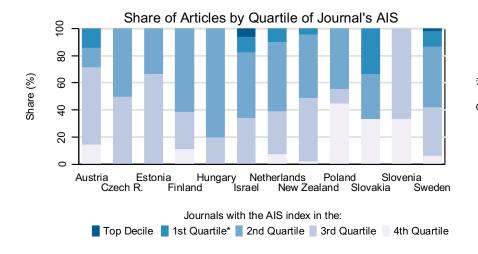
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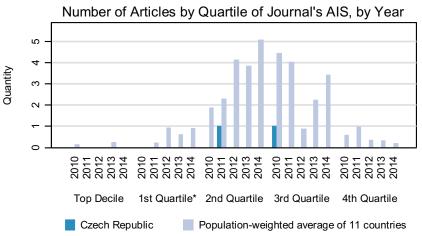
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MEDICAL ETHICS





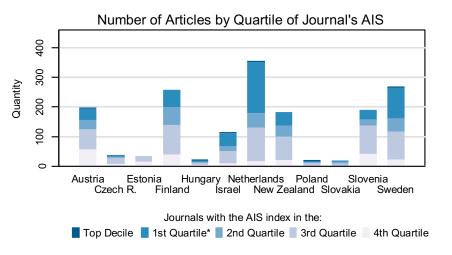


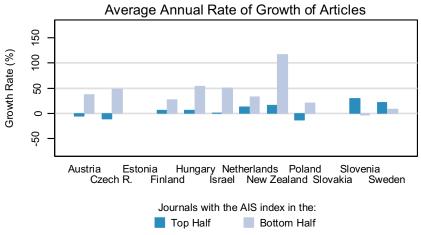


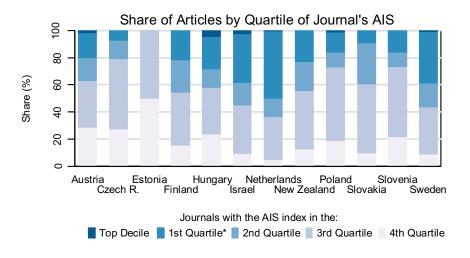
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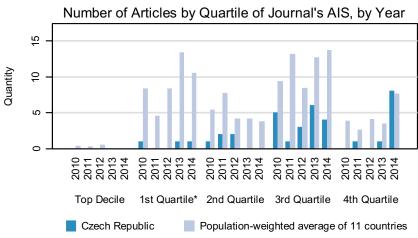
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MEDICAL INFORMATICS





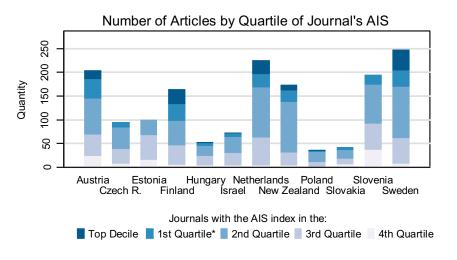


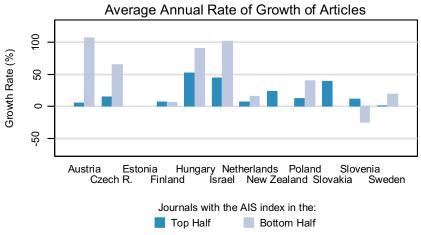


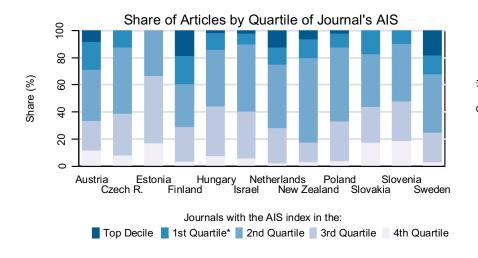
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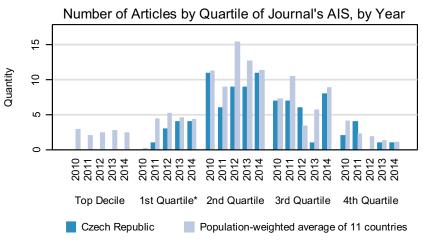
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MEDICAL LABORATORY TECHNOLOGY





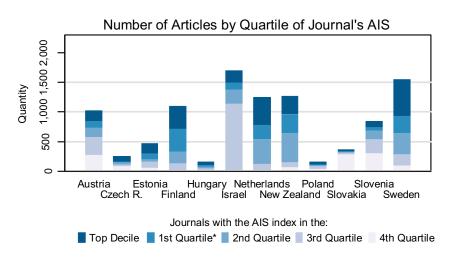


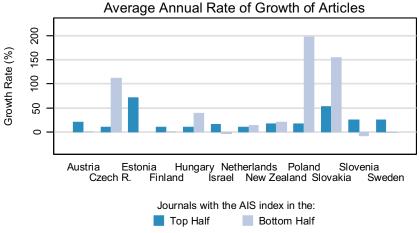


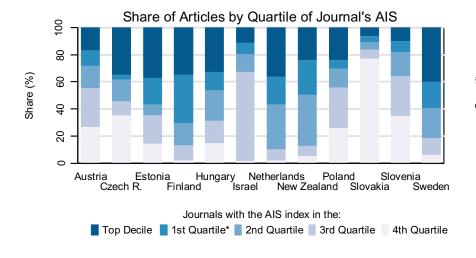
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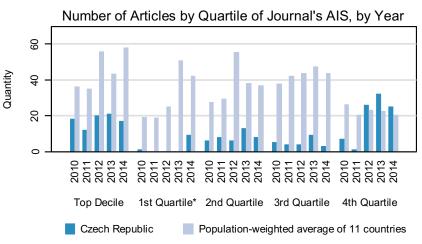
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MEDICINE, GENERAL & INTERNAL





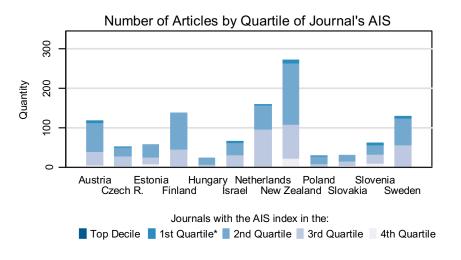


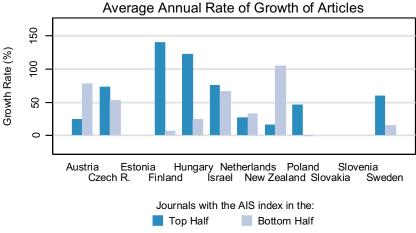


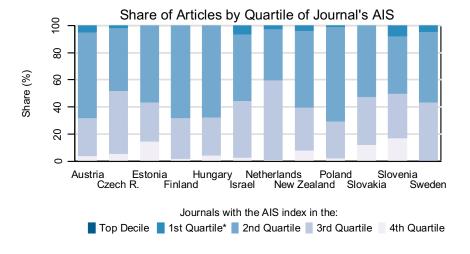
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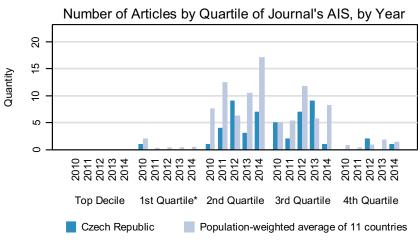
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MEDICINE, LEGAL





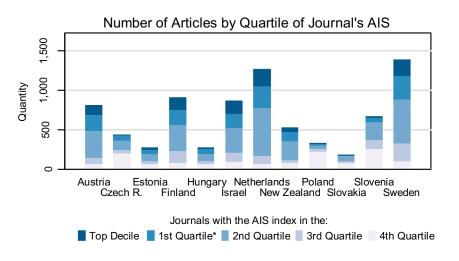


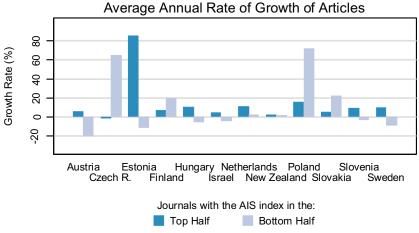


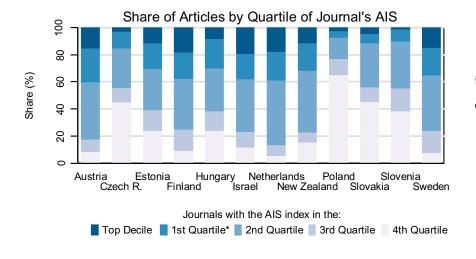
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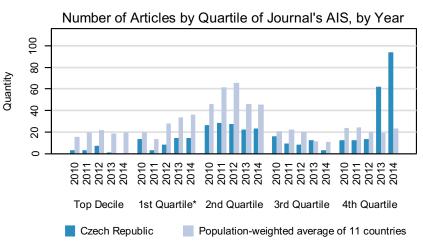
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MEDICINE, RESEARCH & EXPERIMENTAL





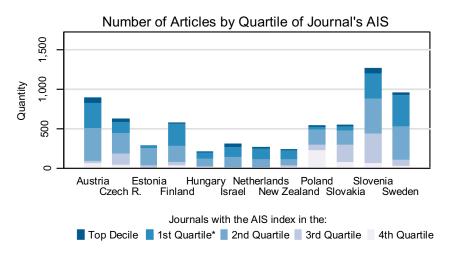


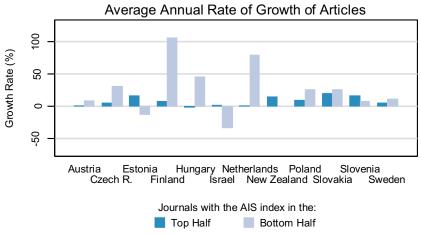


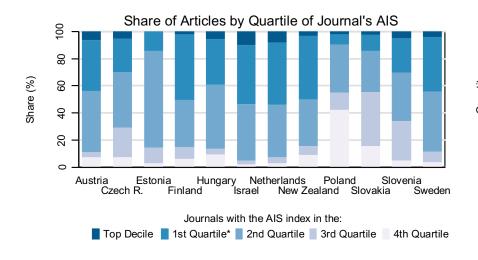
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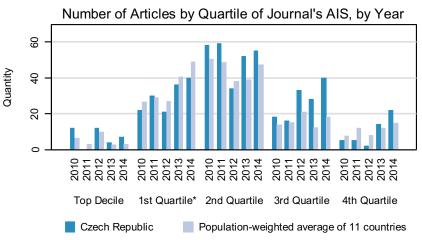
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METALLURGY & METALLURGICAL ENGINEERING





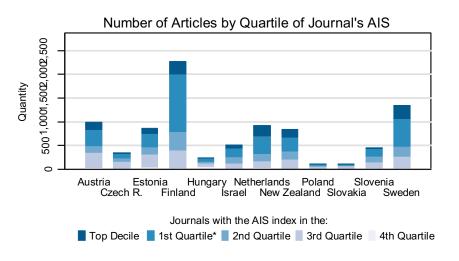


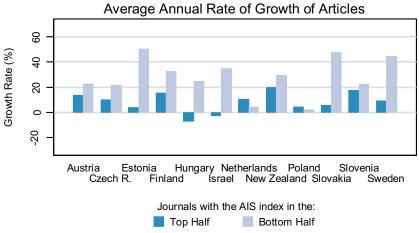


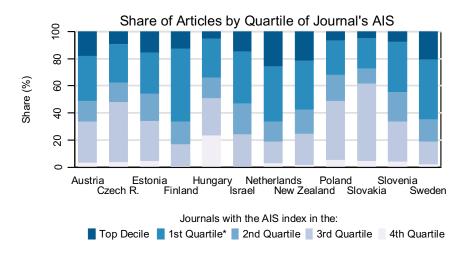
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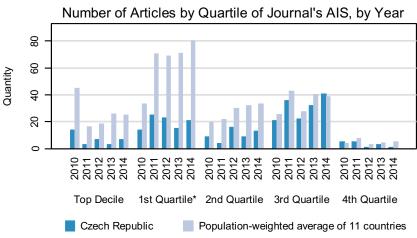
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METEOROLOGY & ATMOSPHERIC SCIENCES





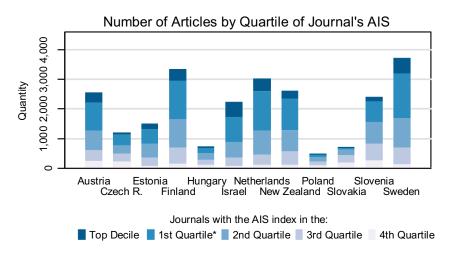


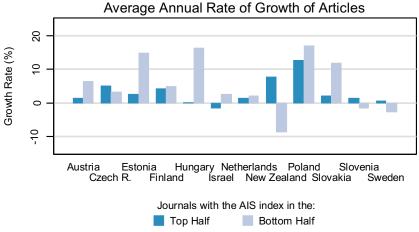


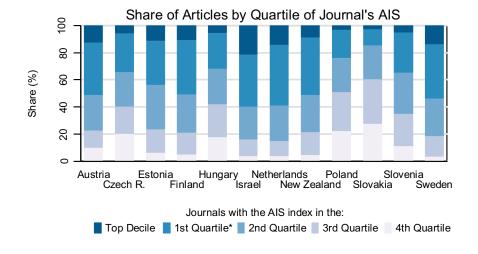
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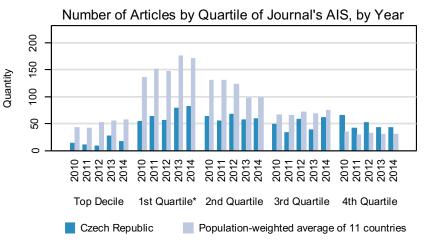
* 1st Quartile excludes the Top Decile

MICROBIOLOGY





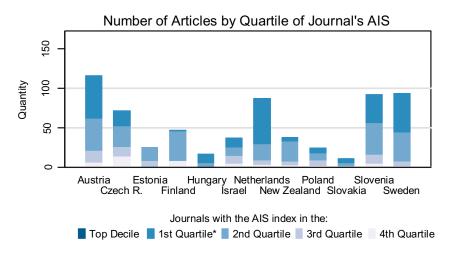


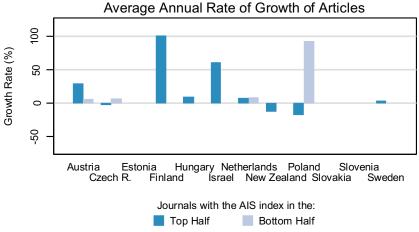


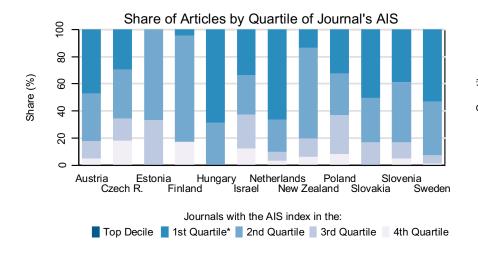
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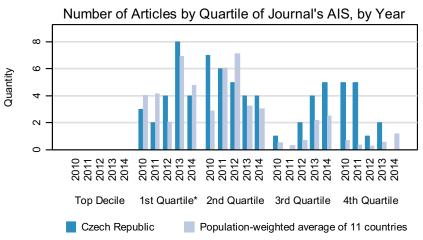
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MICROSCOPY





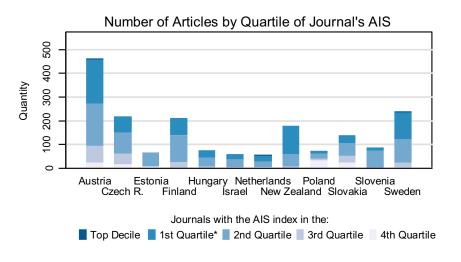


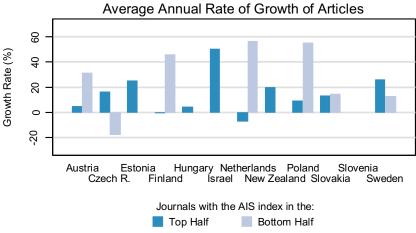


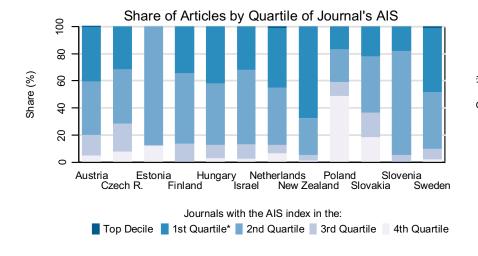
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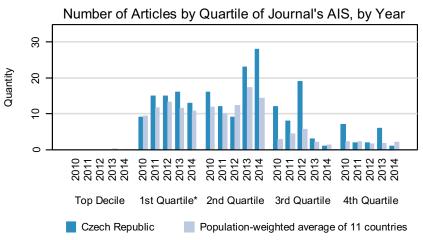
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MINERALOGY





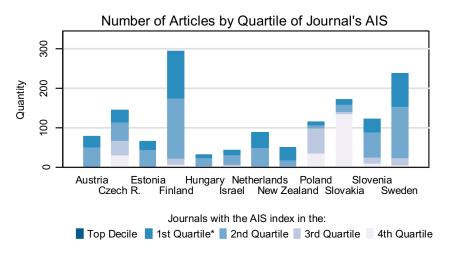


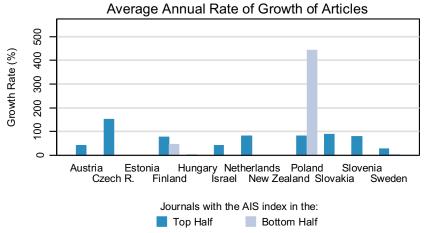


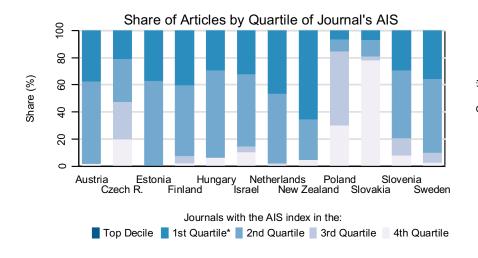
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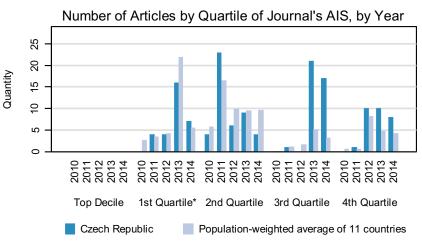
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MINING & MINERAL PROCESSING





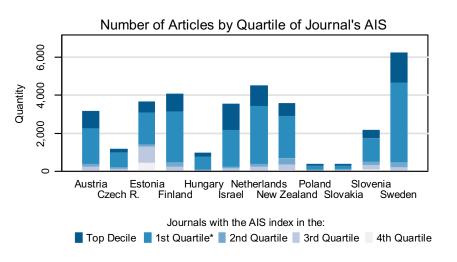


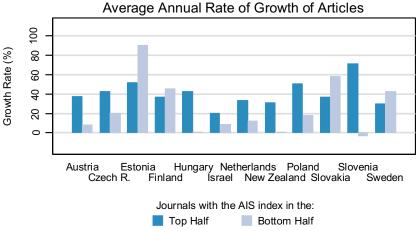


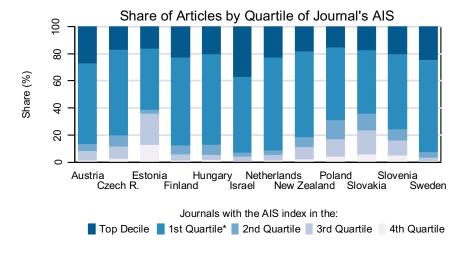
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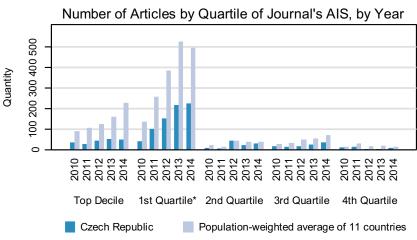
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MULTIDISCIPLINARY SCIENCES





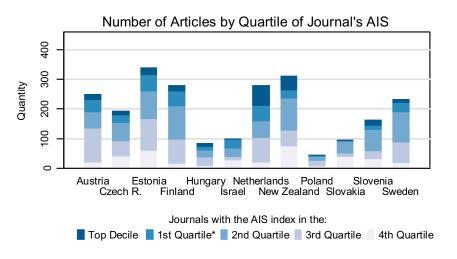


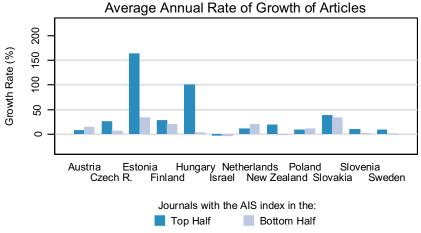


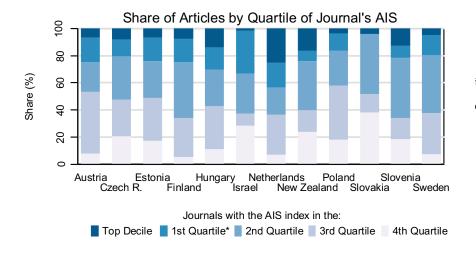
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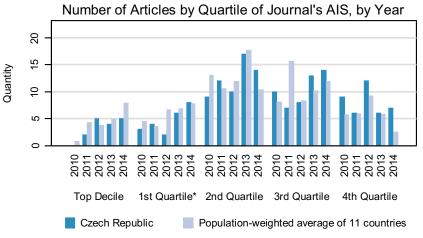
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MYCOLOGY





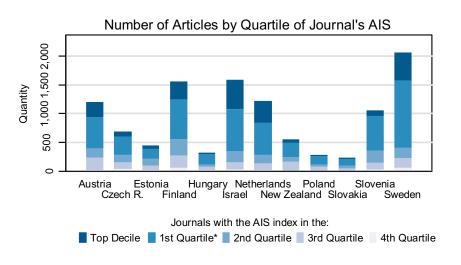


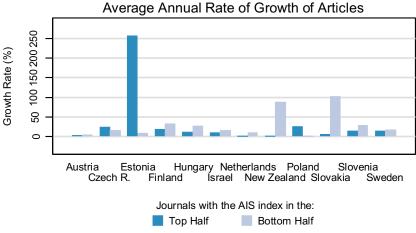


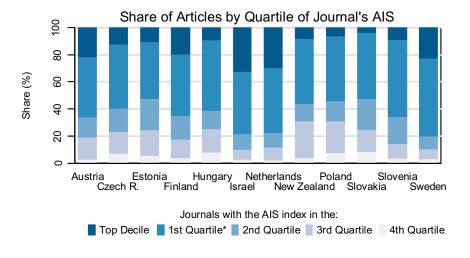
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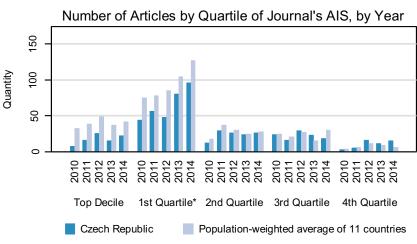
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NANOSCIENCE & NANOTECHNOLOGY





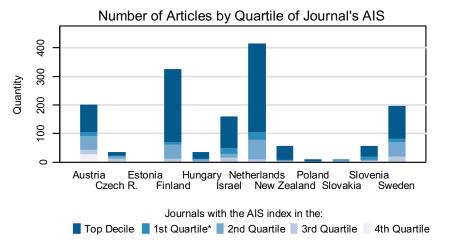


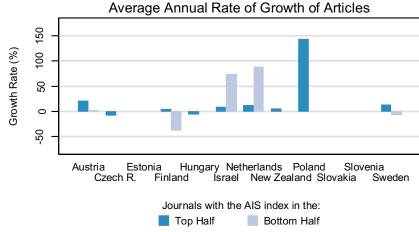


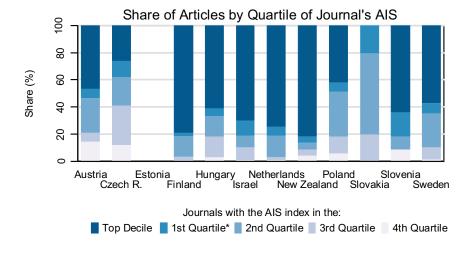
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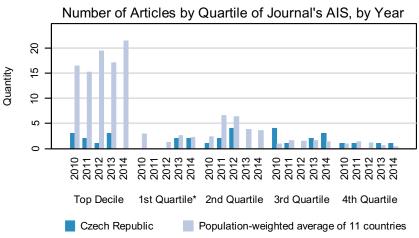
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NEUROIMAGING





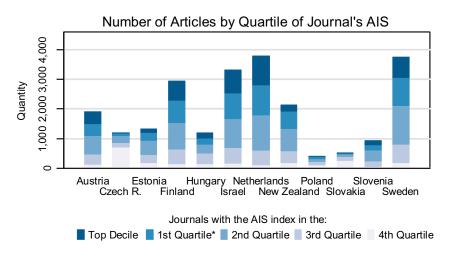


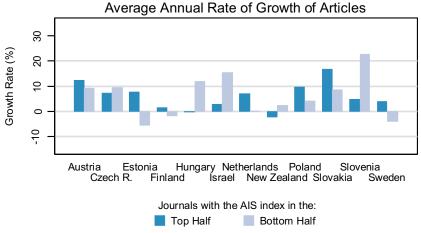


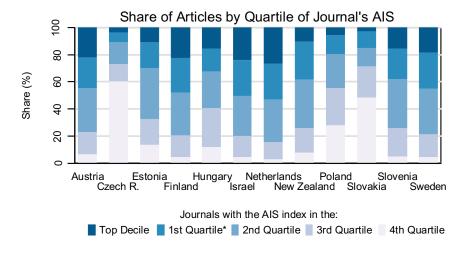
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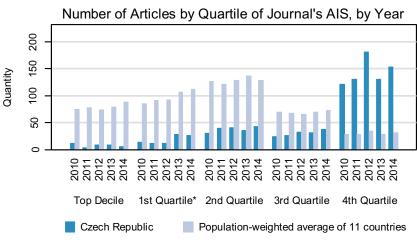
* 1st Quartile excludes the Top Decile

NEUROSCIENCES





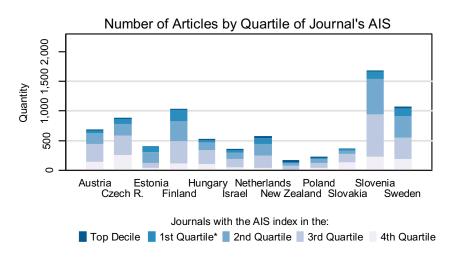


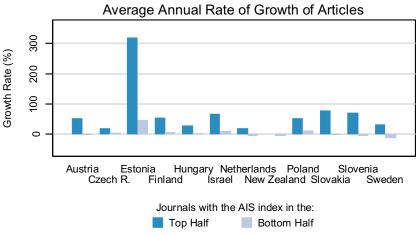


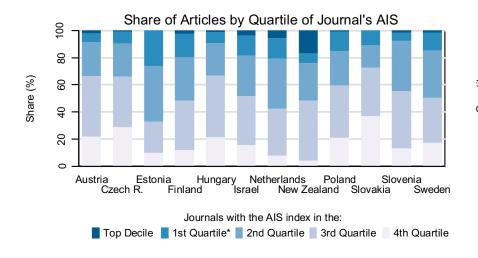
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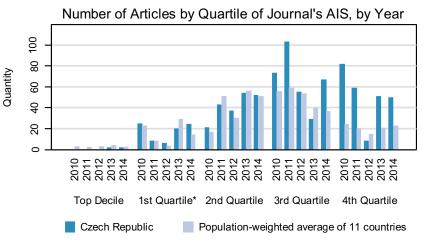
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NUCLEAR SCIENCE & TECHNOLOGY





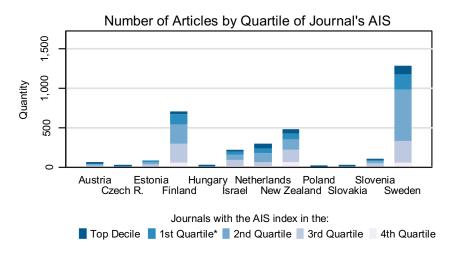


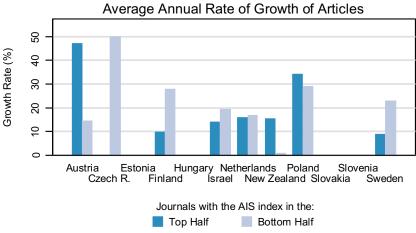


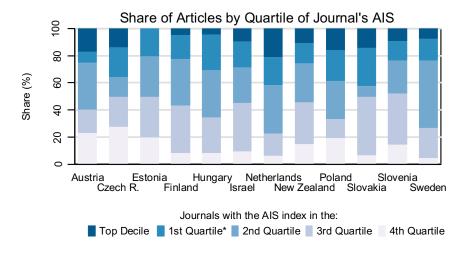
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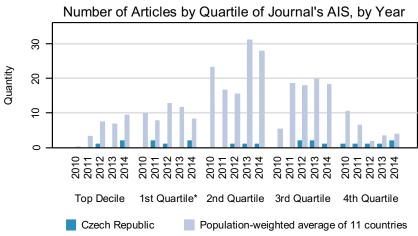
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NURSING





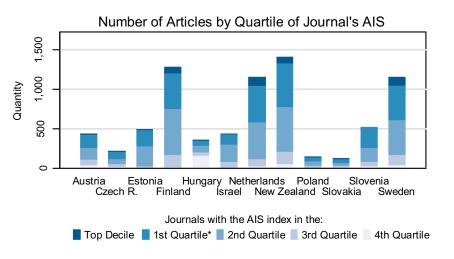


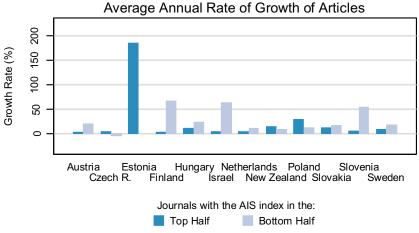


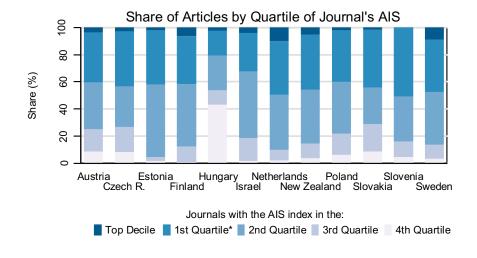
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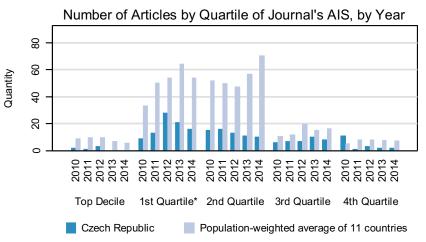
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NUTRITION & DIETETICS





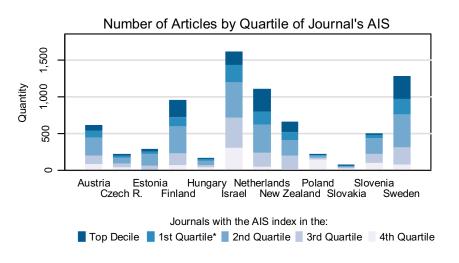


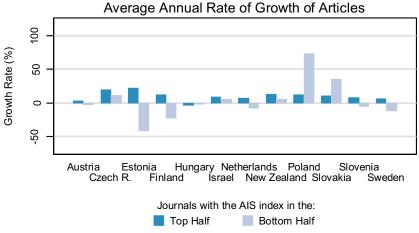


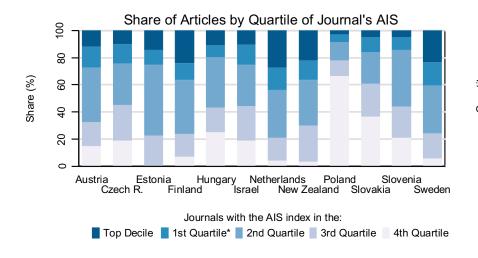
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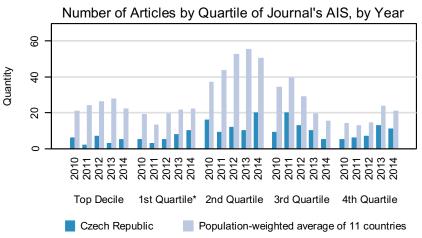
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OBSTETRICS & GYNECOLOGY





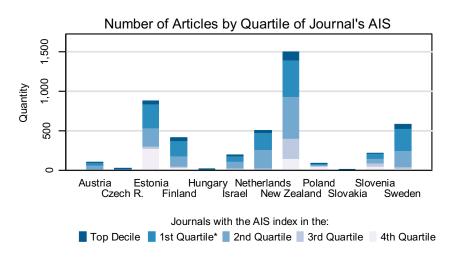


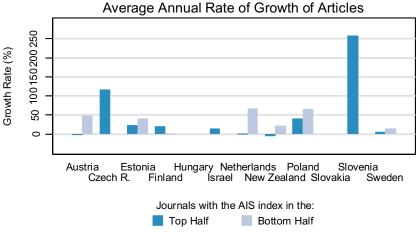


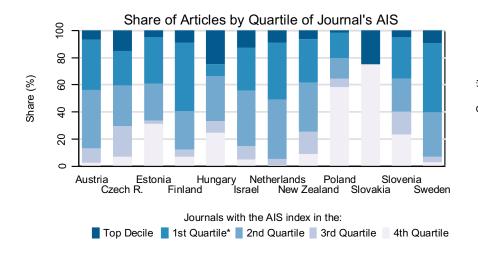
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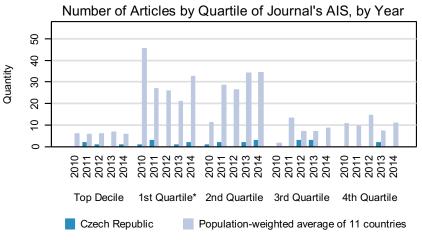
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OCEANOGRAPHY





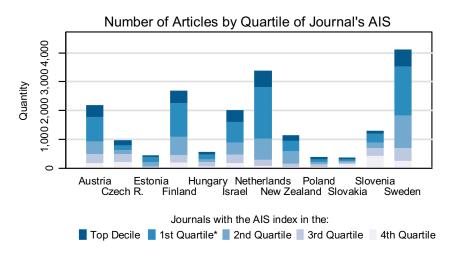


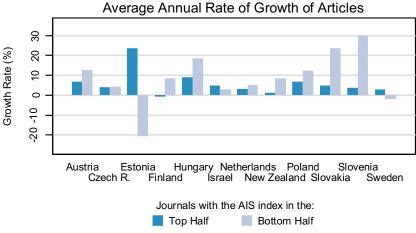


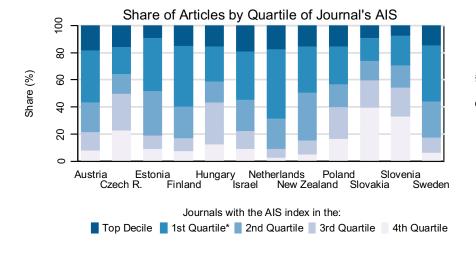
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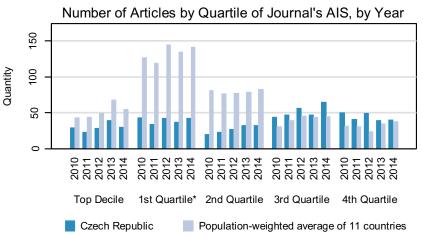
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ONCOLOGY





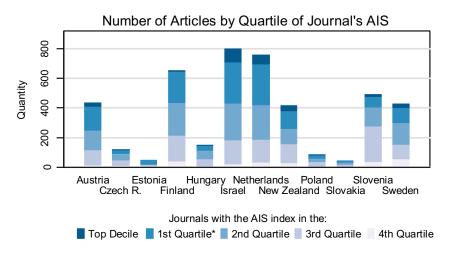


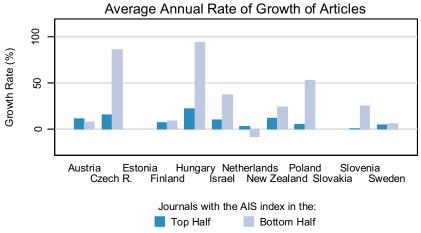


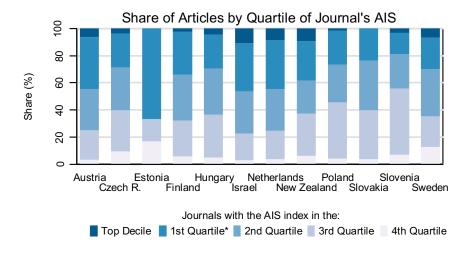
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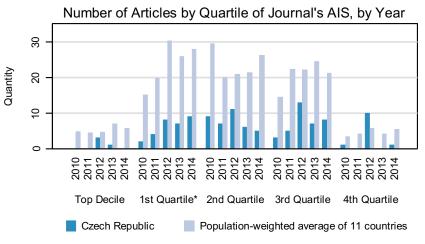
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OPERATIONS RESEARCH & MANAGEMENT SCIENCE





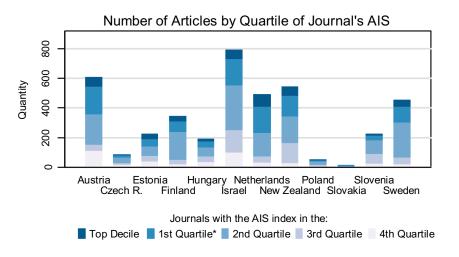


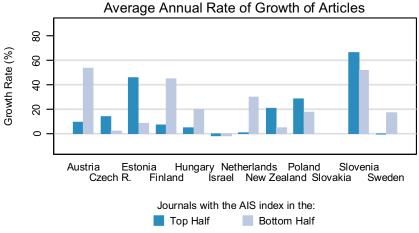


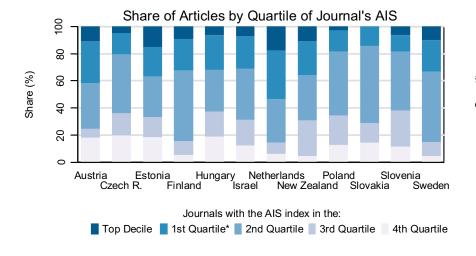
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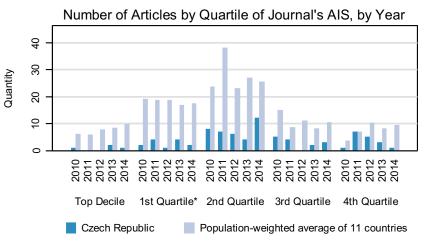
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OPHTHALMOLOGY





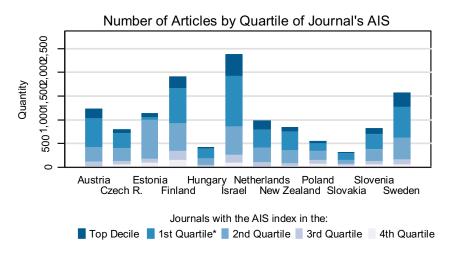


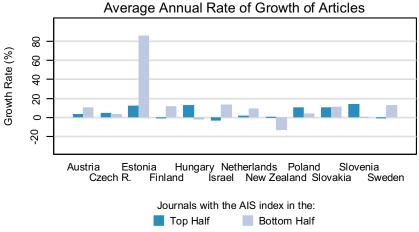


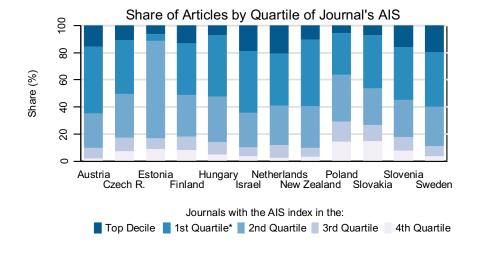
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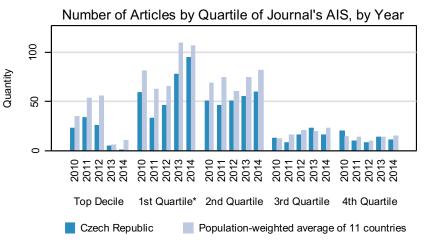
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OPTICS





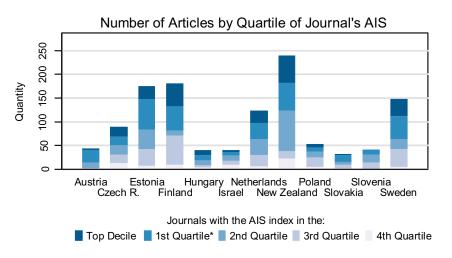


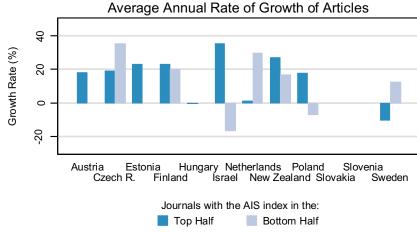


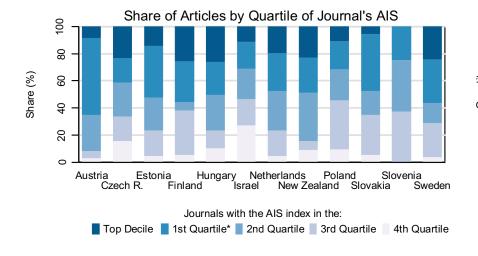
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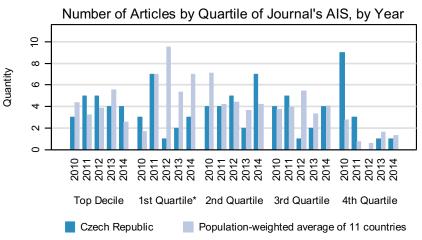
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ORNITHOLOGY





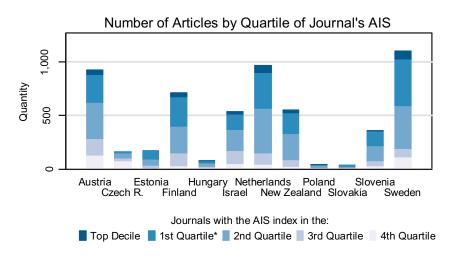


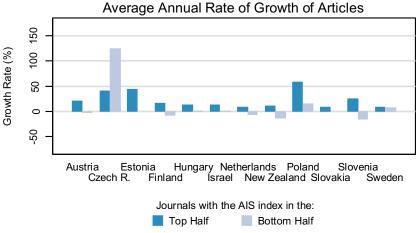


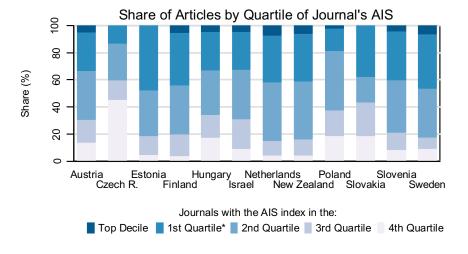
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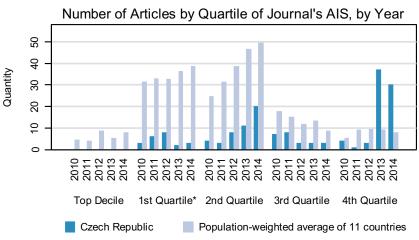
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ORTHOPEDICS





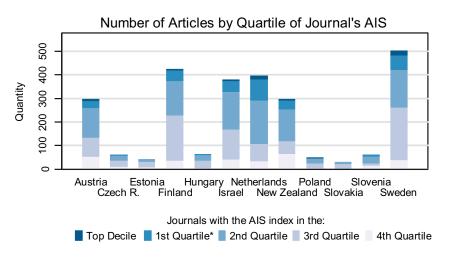


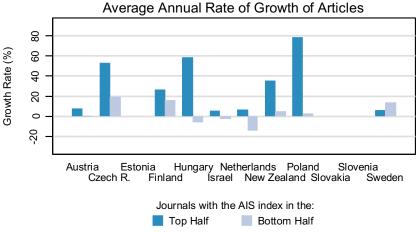


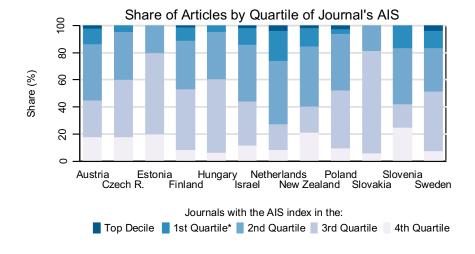
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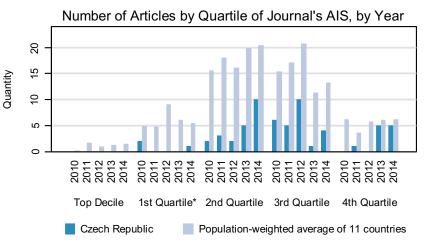
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OTORHINOLARYNGOLOGY





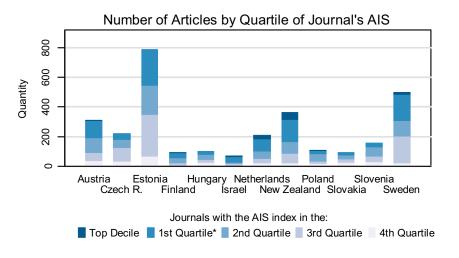


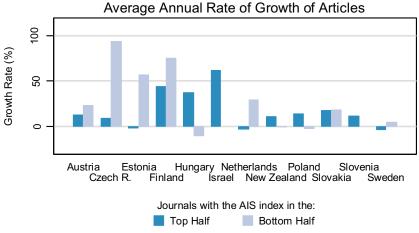


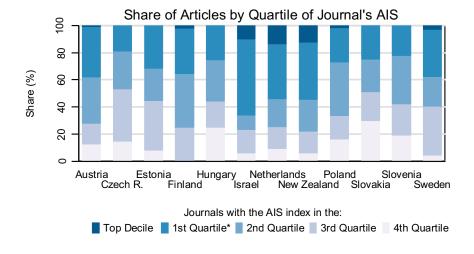
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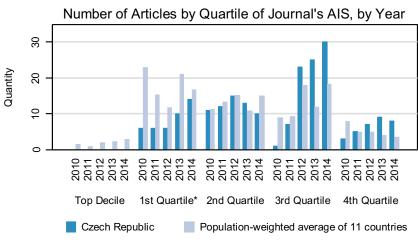
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PALEONTOLOGY





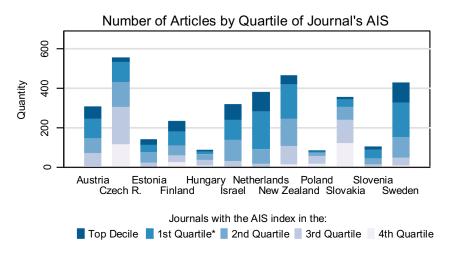


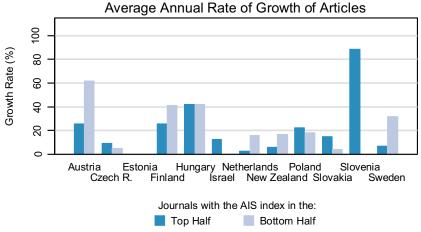


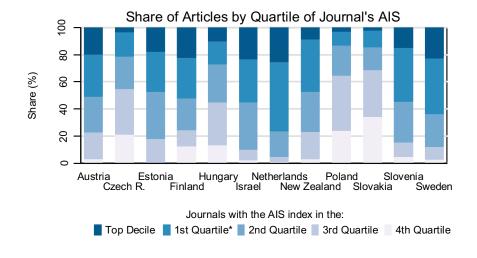
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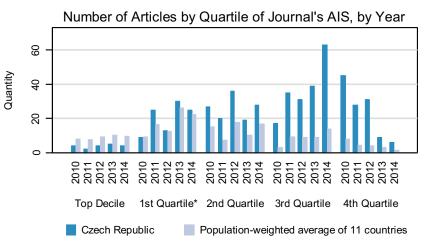
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PARASITOLOGY





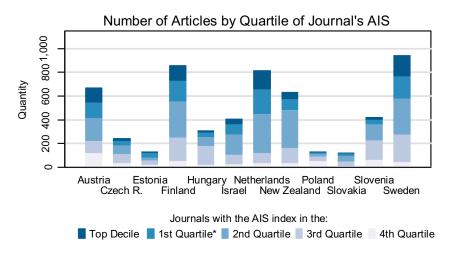


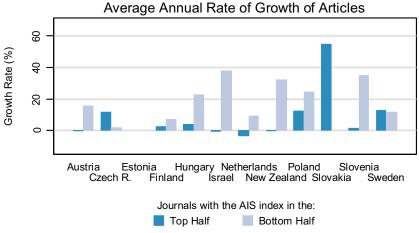


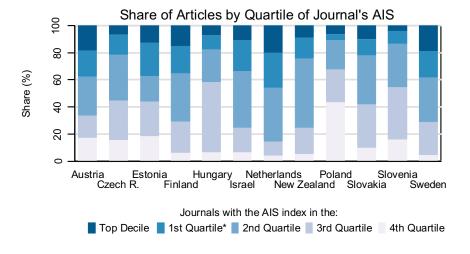
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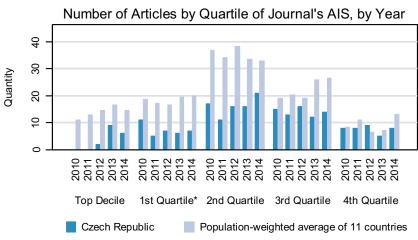
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PATHOLOGY





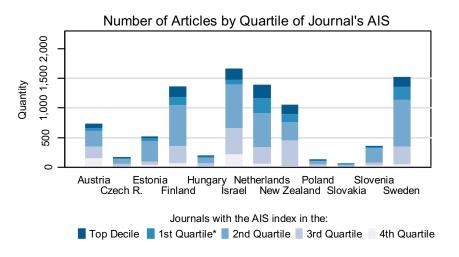


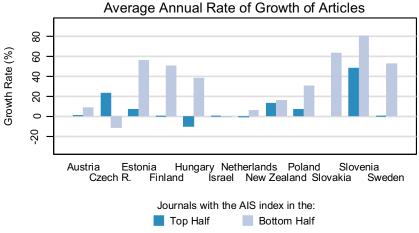


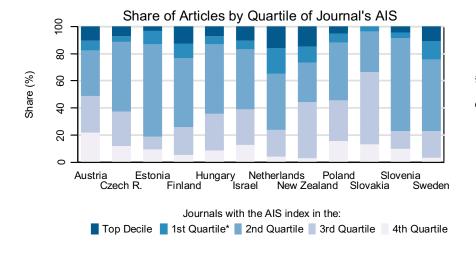
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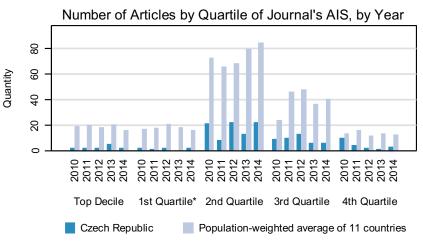
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PEDIATRICS





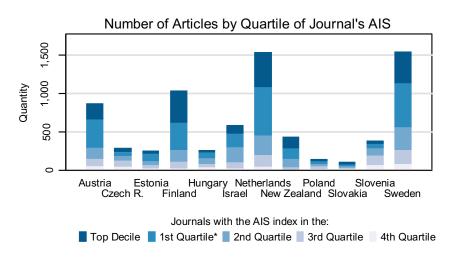


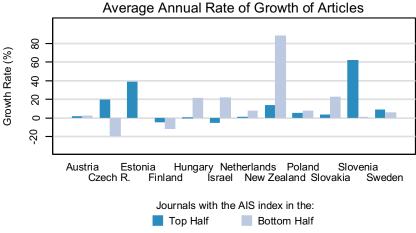


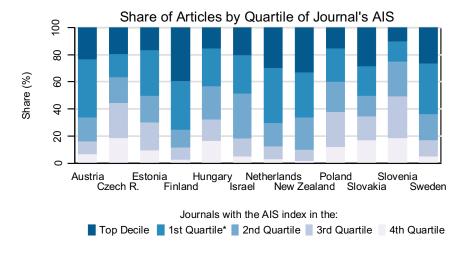
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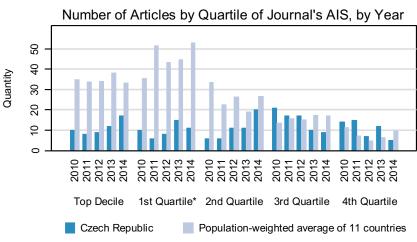
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PERIPHERAL VASCULAR DISEASE





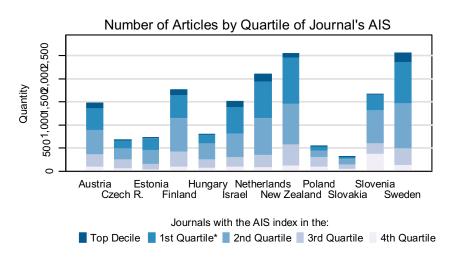


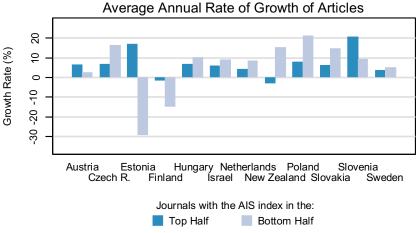


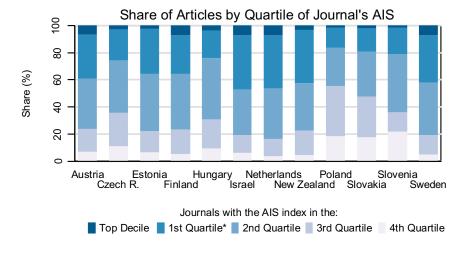
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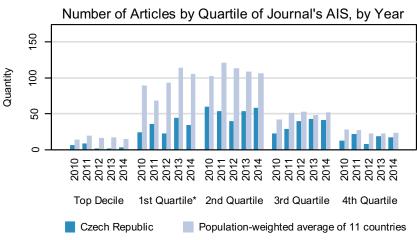
* 1st Quartile excludes the Top Decile

PHARMACOLOGY & PHARMACY





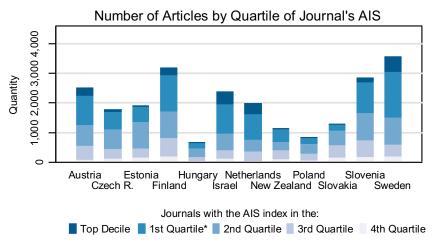


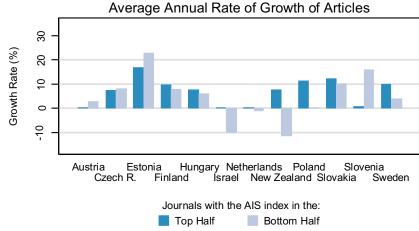


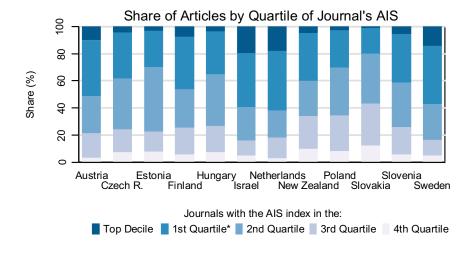
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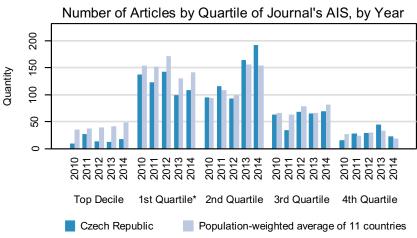
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PHYSICS, APPLIED





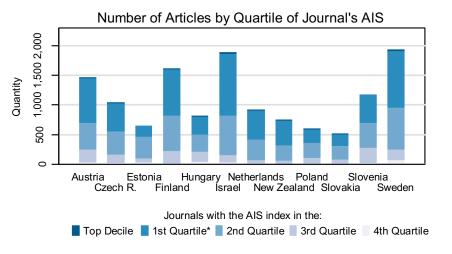


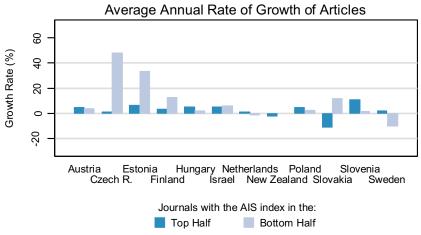


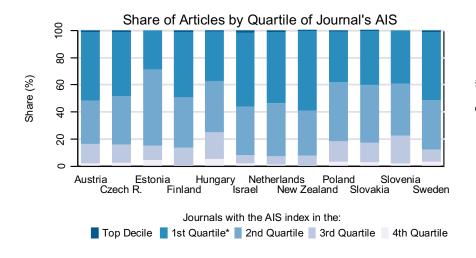
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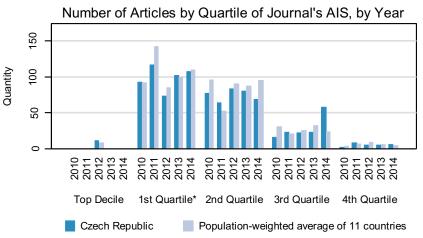
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PHYSICS, ATOMIC, MOLECULAR & CHEMICAL





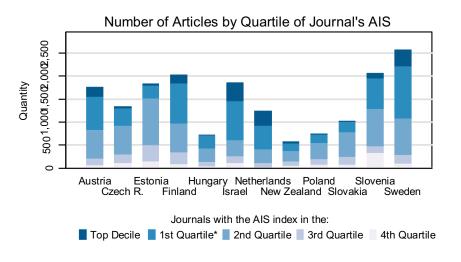


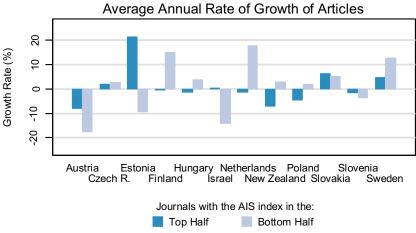


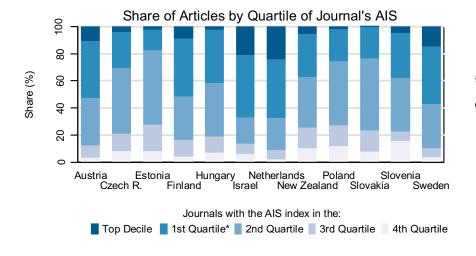
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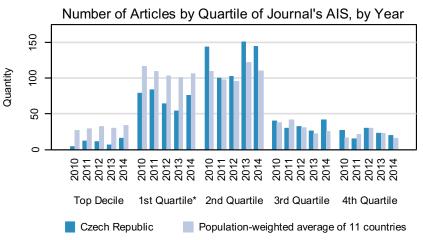
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PHYSICS, CONDENSED MATTER





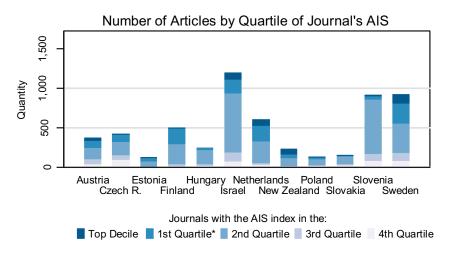


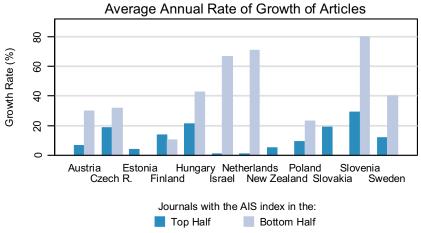


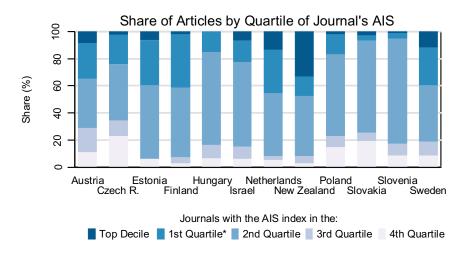
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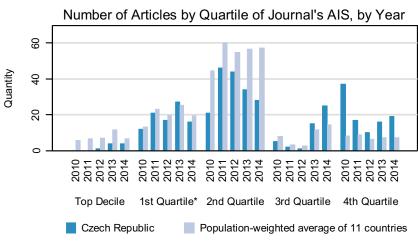
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PHYSICS, FLUIDS & PLASMAS







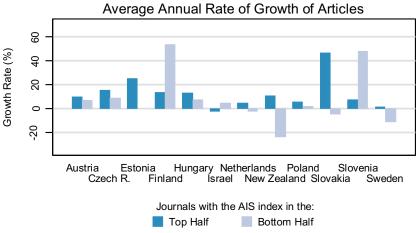


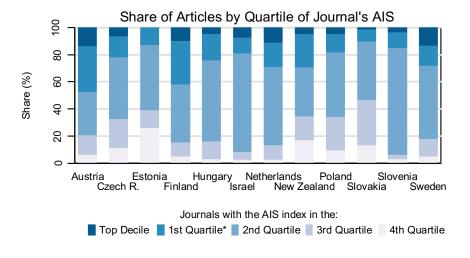
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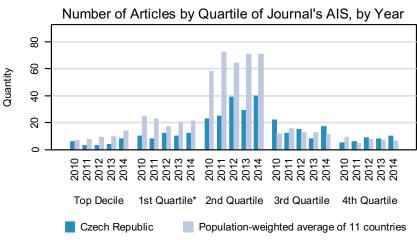
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PHYSICS, MATHEMATICAL





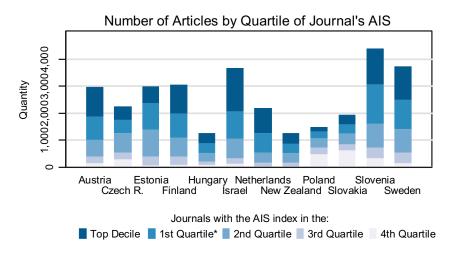


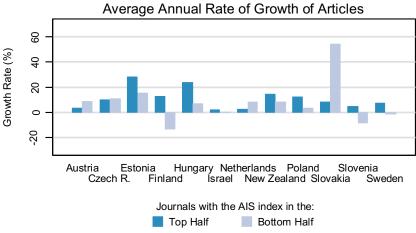


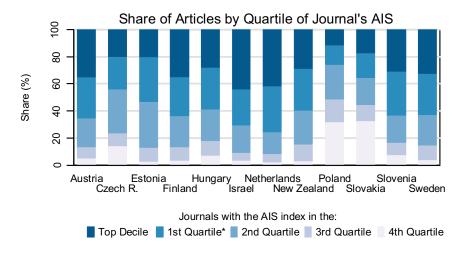
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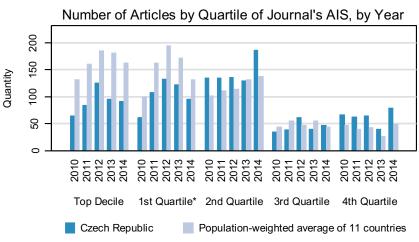
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PHYSICS, MULTIDISCIPLINARY





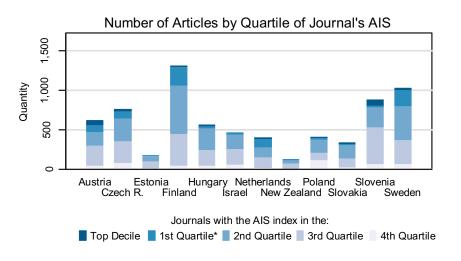


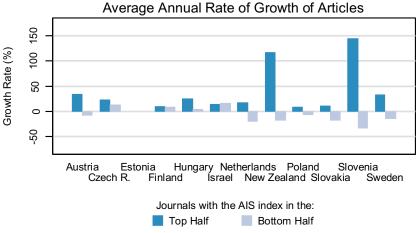


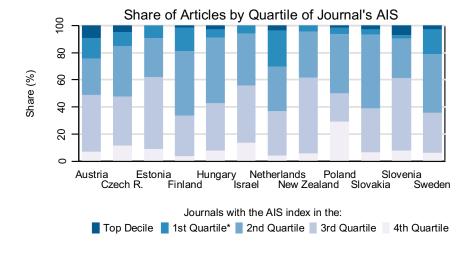
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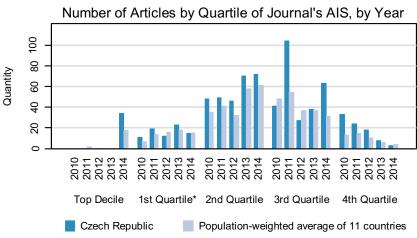
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PHYSICS, NUCLEAR





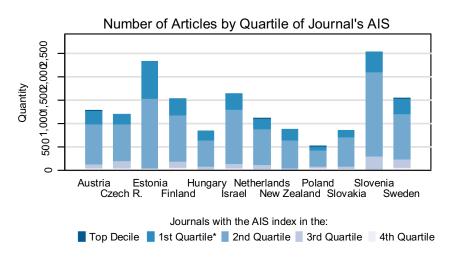


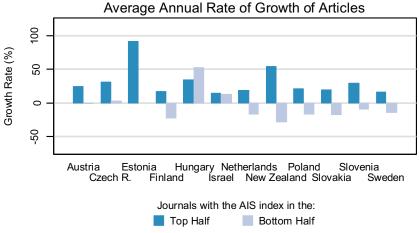


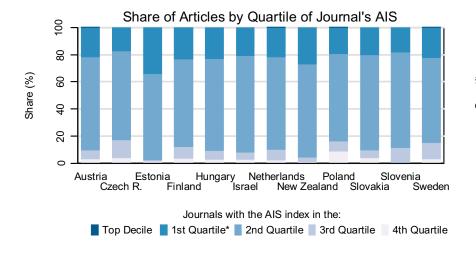
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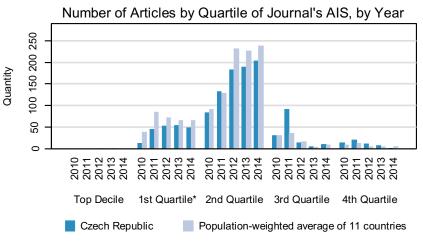
* 1st Quartile excludes the Top Decile

PHYSICS, PARTICLES & FIELDS







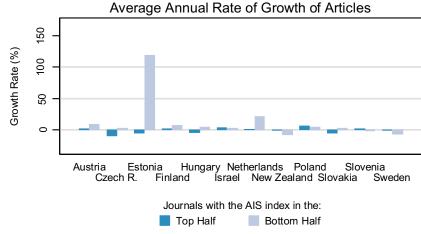


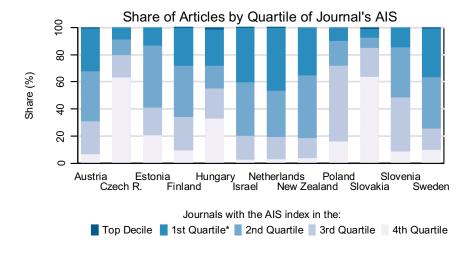
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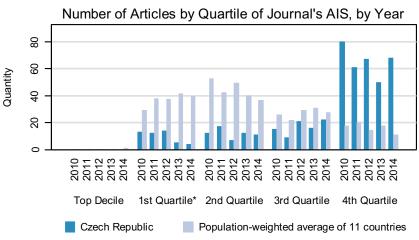
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PHYSIOLOGY





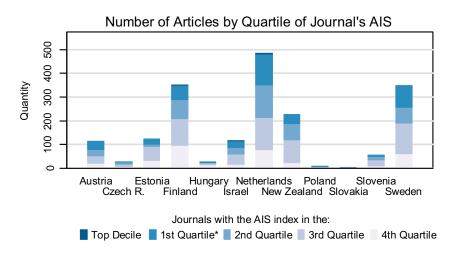


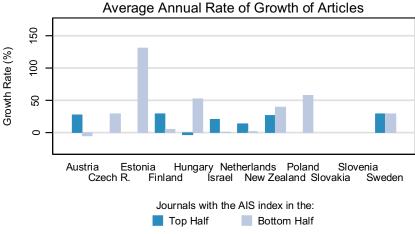


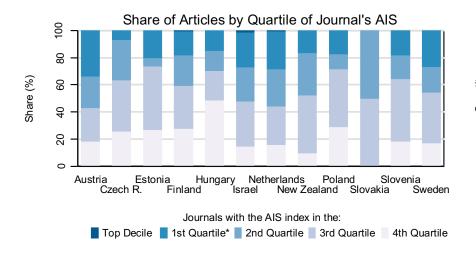
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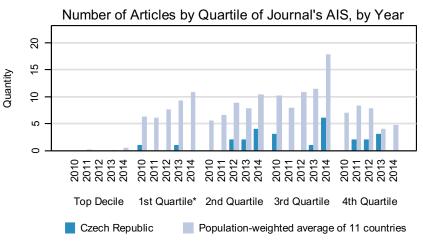
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PLANNING & DEVELOPMENT





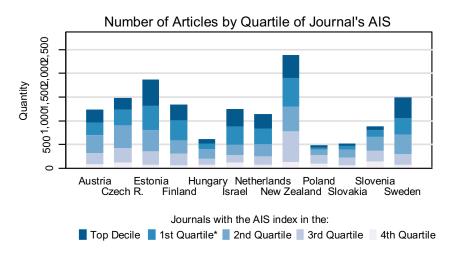


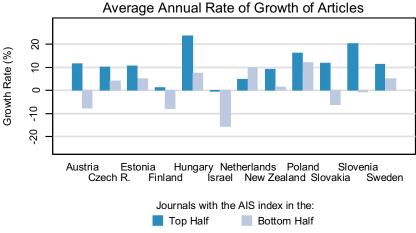


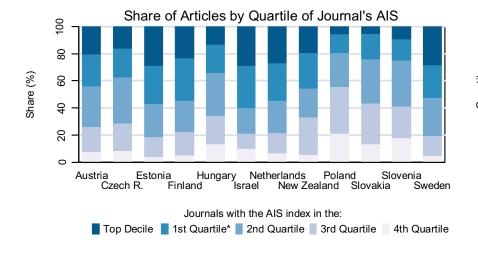
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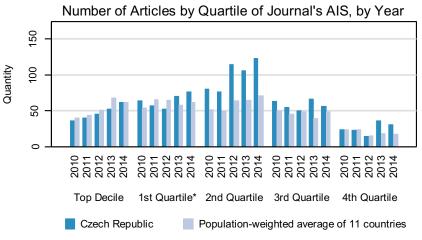
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PLANT SCIENCES





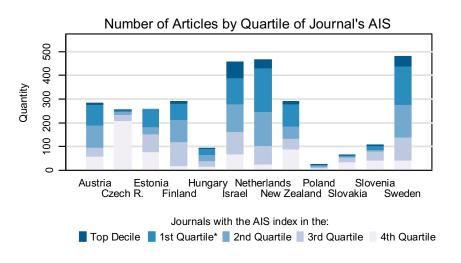


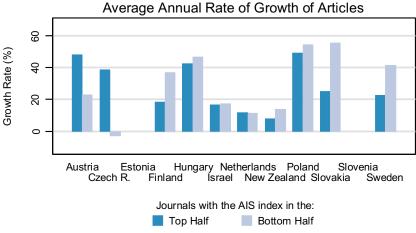


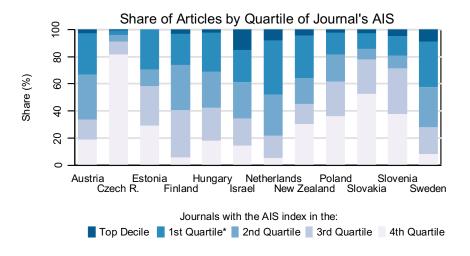
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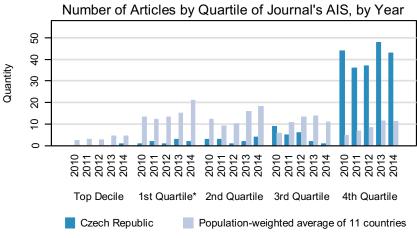
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POLITICAL SCIENCE





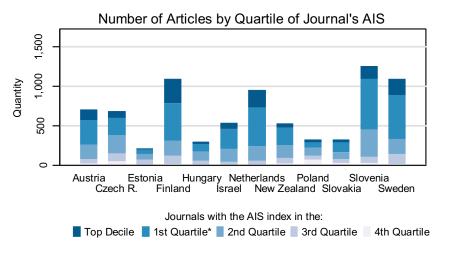


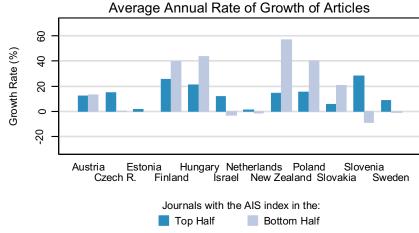


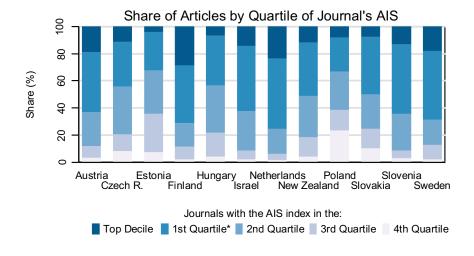
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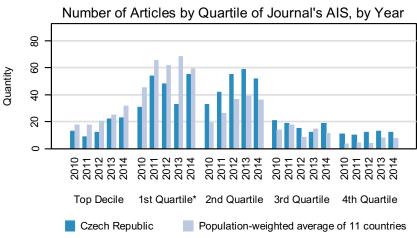
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POLYMER SCIENCE





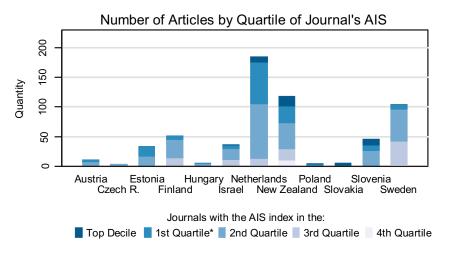


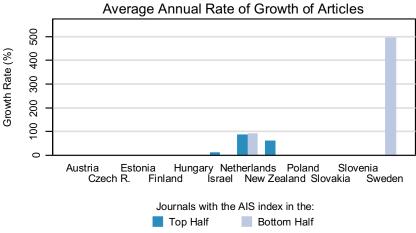


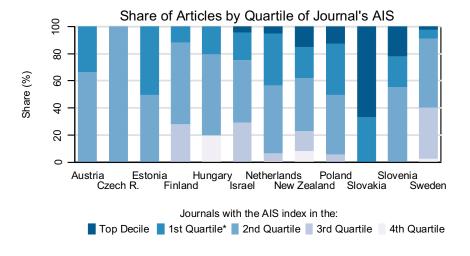
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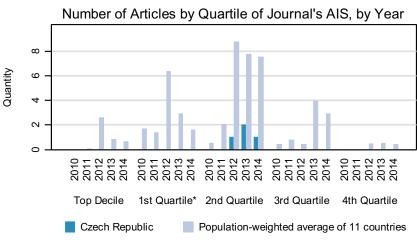
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PRIMARY HEALTH CARE





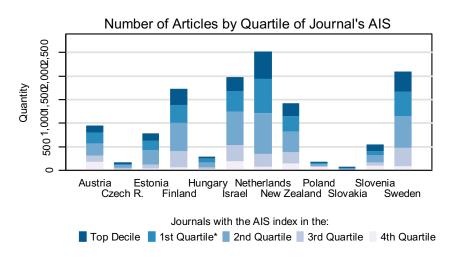


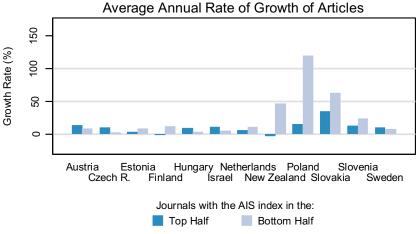


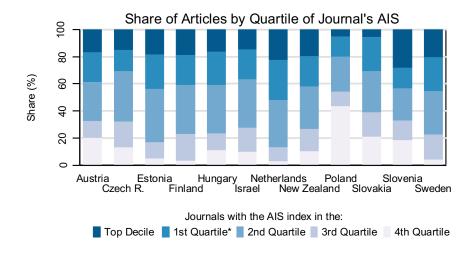
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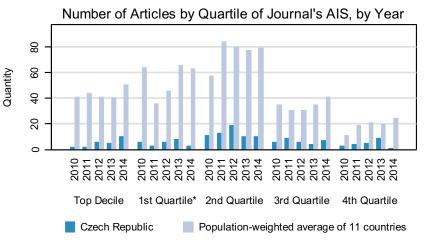
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PSYCHIATRY





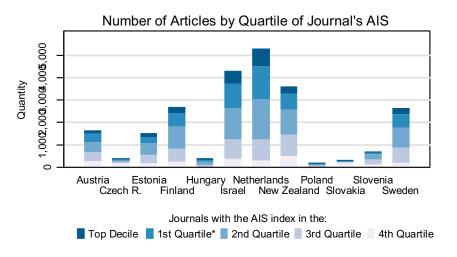


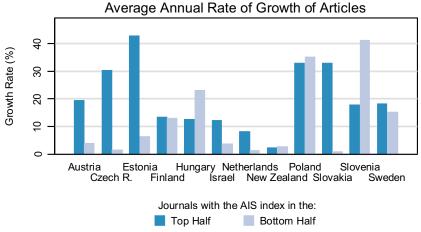


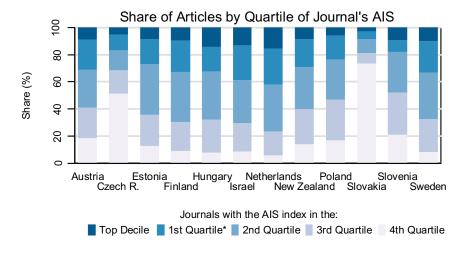
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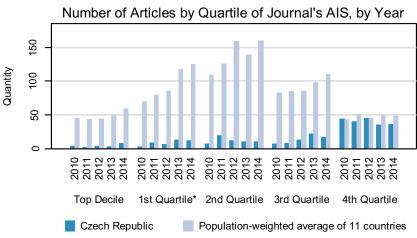
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PSYCHOLOGY





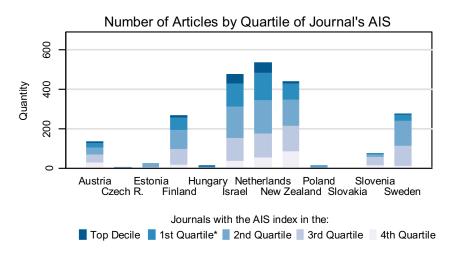


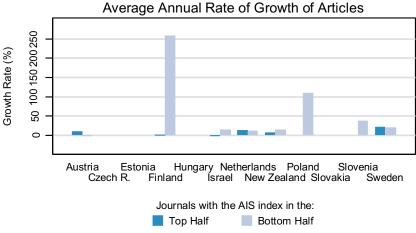


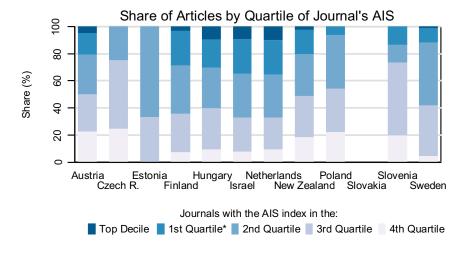
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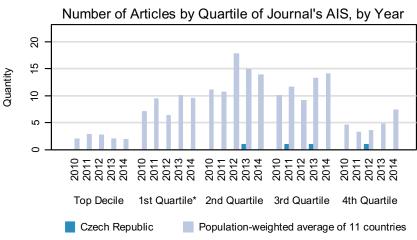
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PSYCHOLOGY, APPLIED





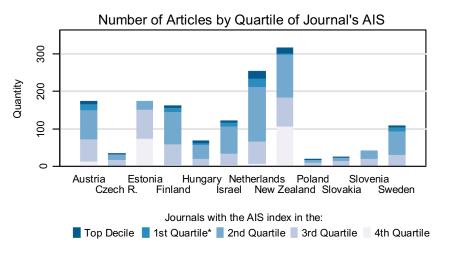


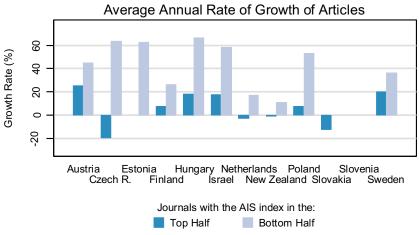


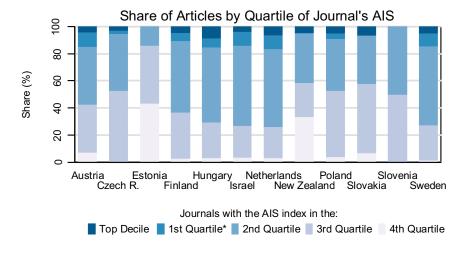
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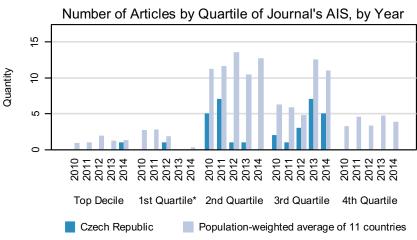
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PSYCHOLOGY, BIOLOGICAL





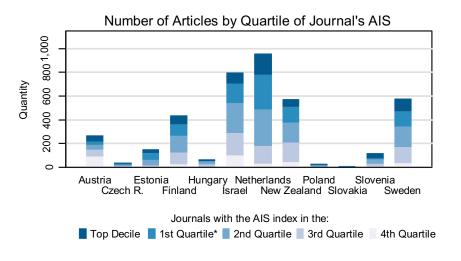


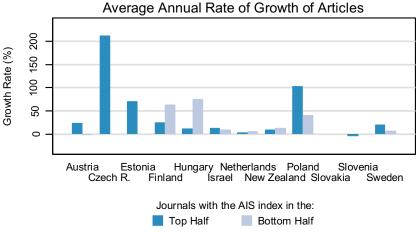


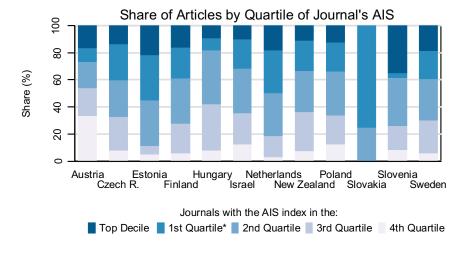
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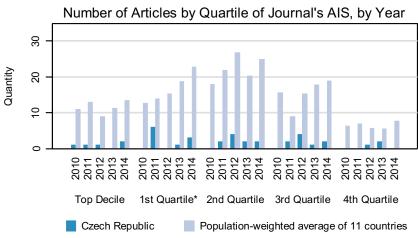
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PSYCHOLOGY, CLINICAL





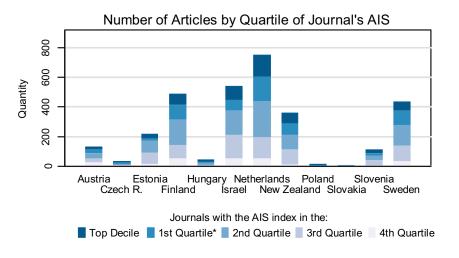


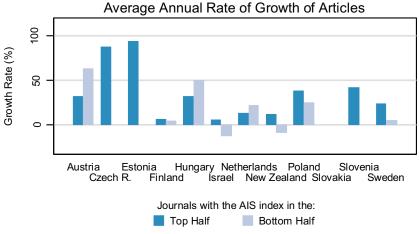


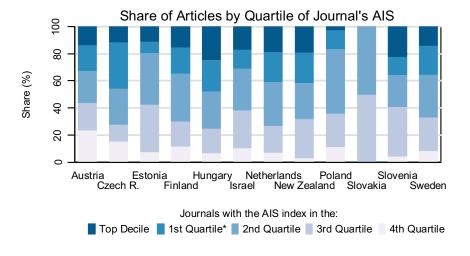
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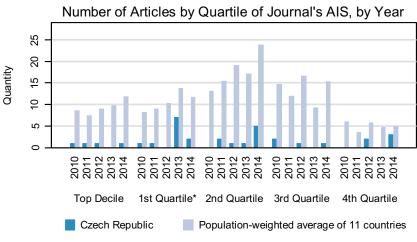
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PSYCHOLOGY, DEVELOPMENTAL





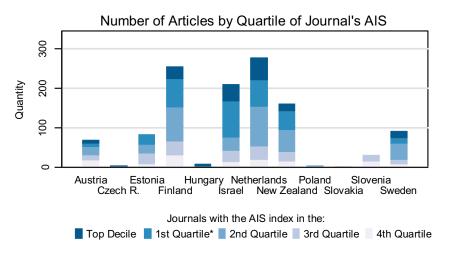


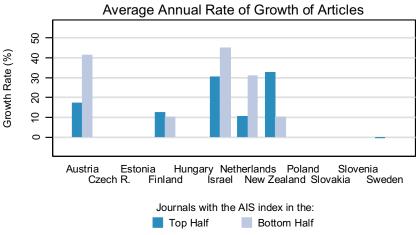


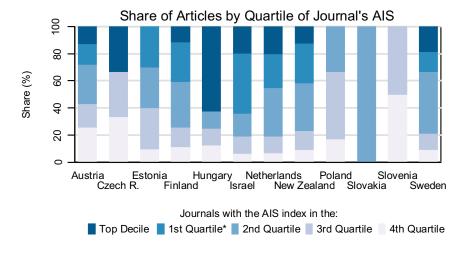
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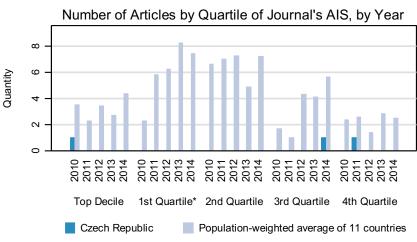
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PSYCHOLOGY, EDUCATIONAL





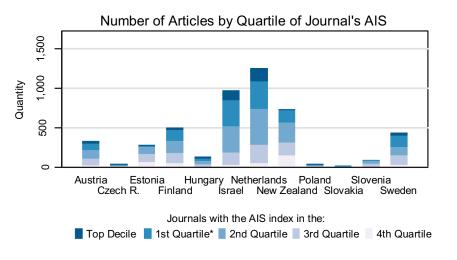


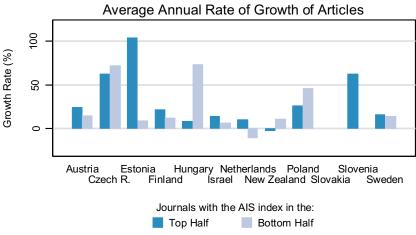


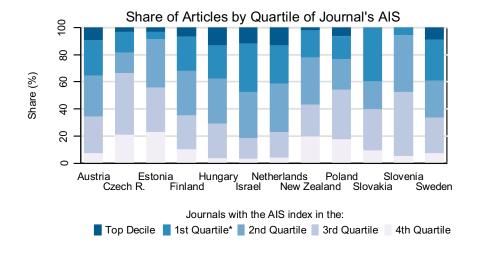
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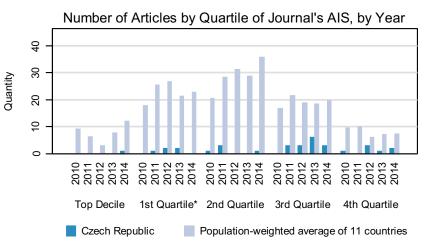
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PSYCHOLOGY, EXPERIMENTAL





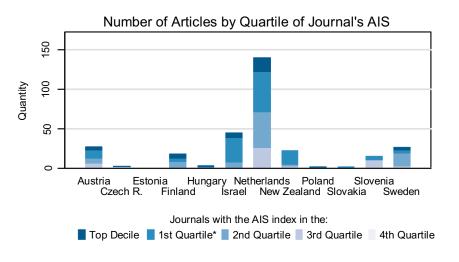


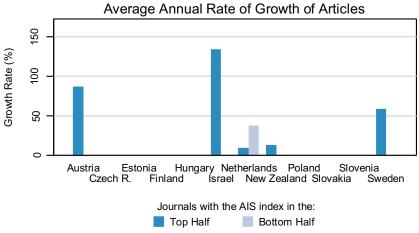


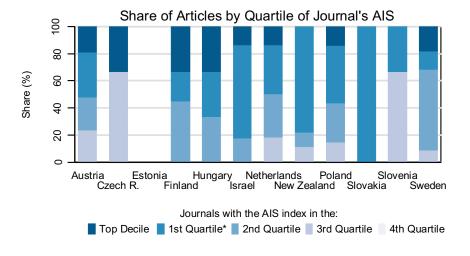
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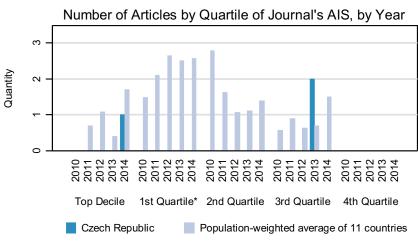
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PSYCHOLOGY, MATHEMATICAL





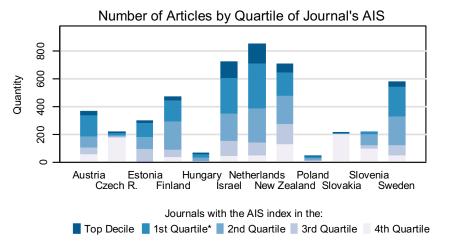


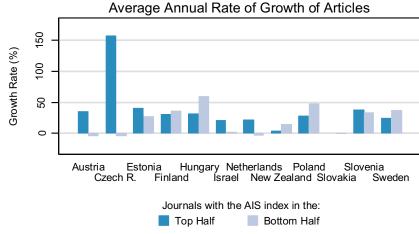


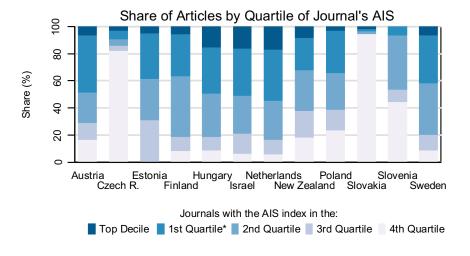
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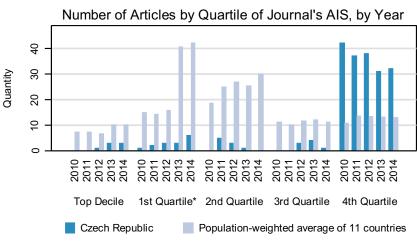
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PSYCHOLOGY, MULTIDISCIPLINARY





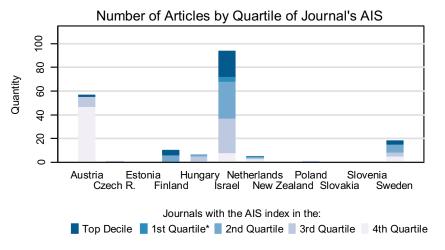


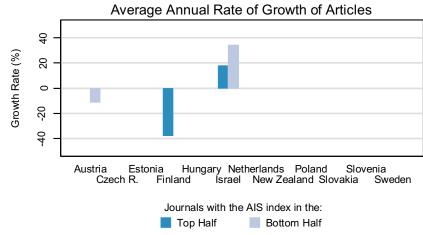


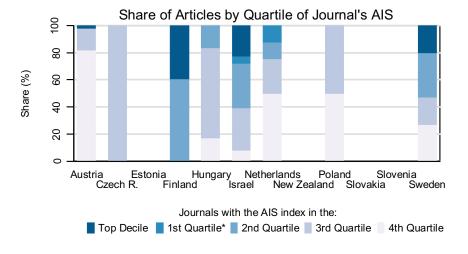
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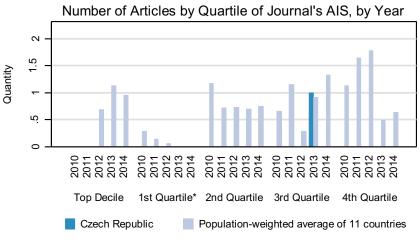
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PSYCHOLOGY, PSYCHOANALYSIS





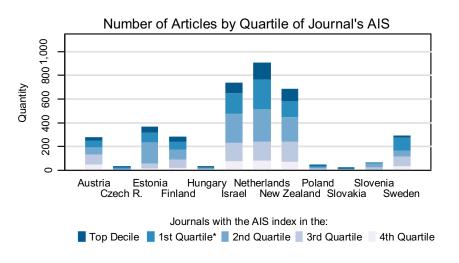


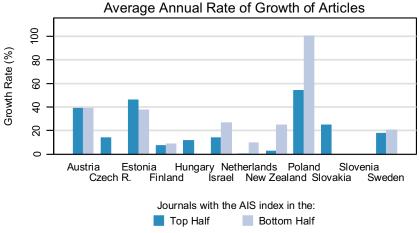


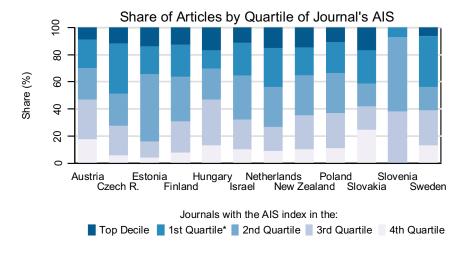
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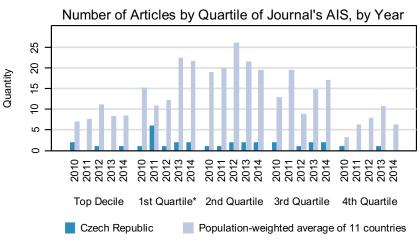
* 1st Quartile excludes the Top Decile

PSYCHOLOGY, SOCIAL





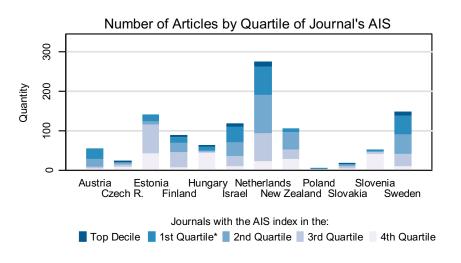


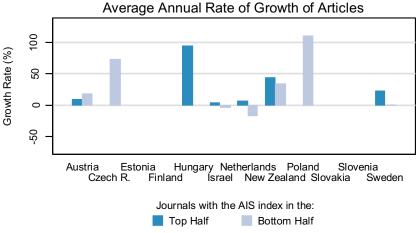


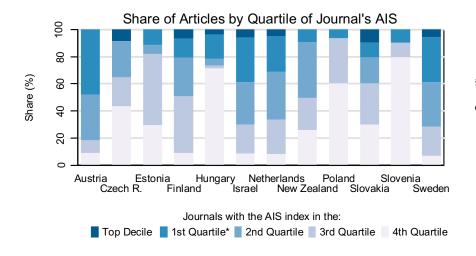
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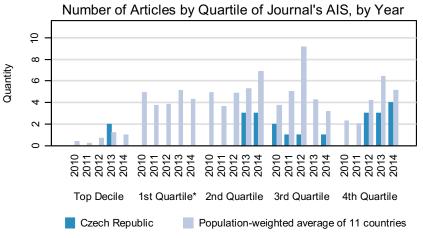
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PUBLIC ADMINISTRATION





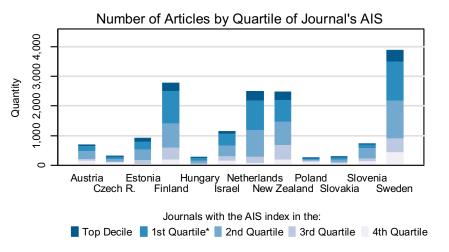


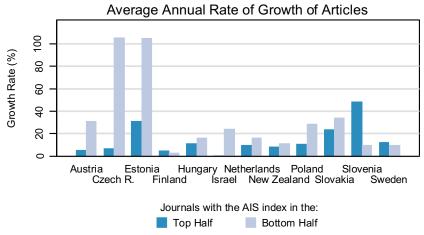


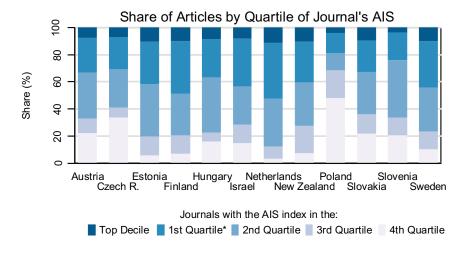
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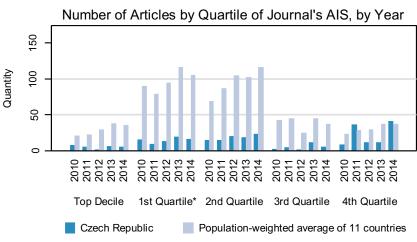
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PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH





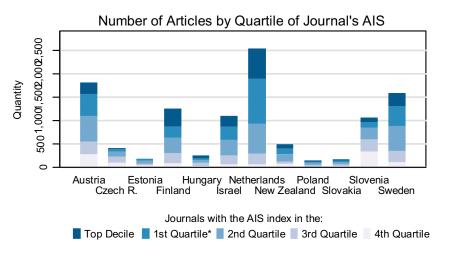


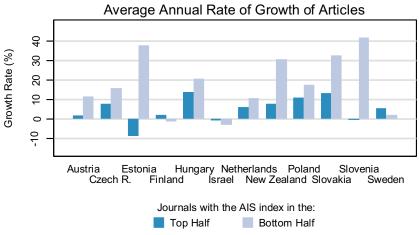


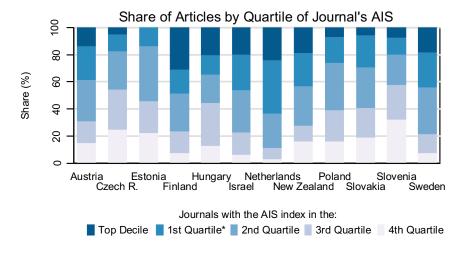
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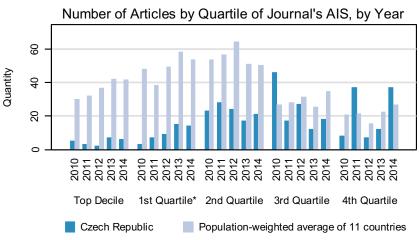
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RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING





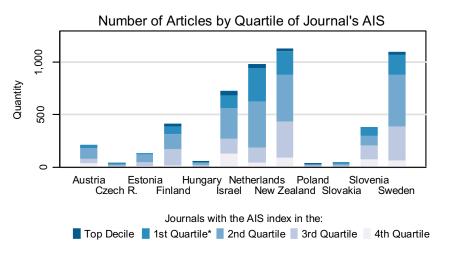


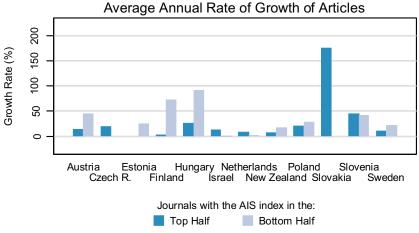


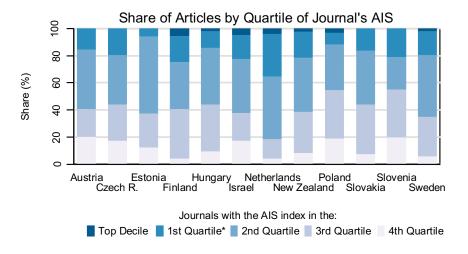
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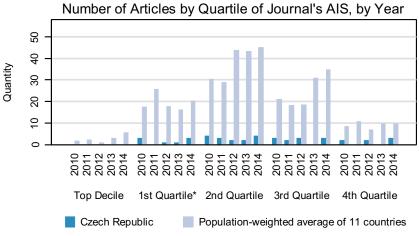
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REHABILITATION





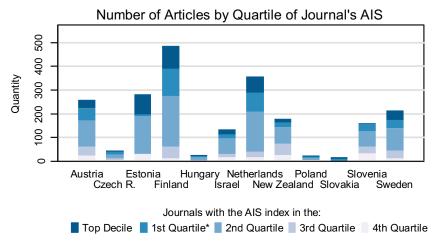


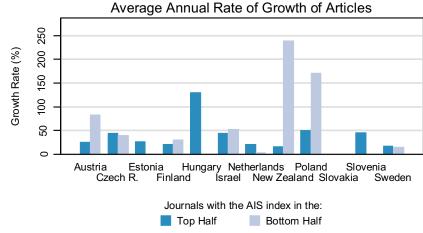


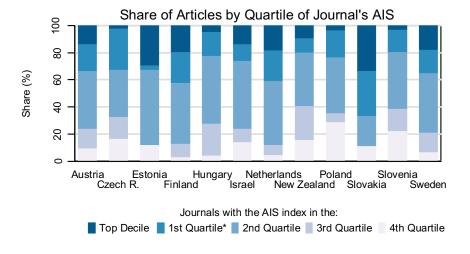
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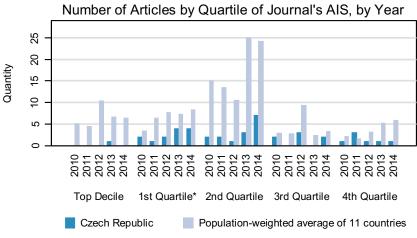
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REMOTE SENSING





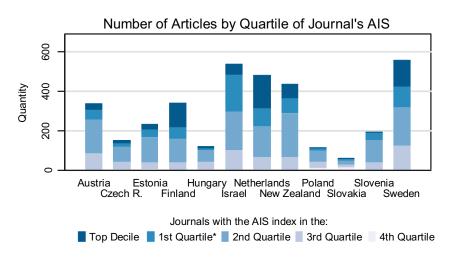


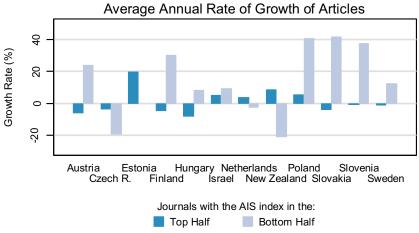


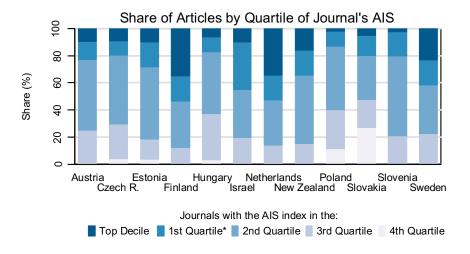
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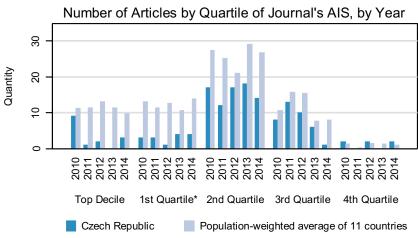
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REPRODUCTIVE BIOLOGY





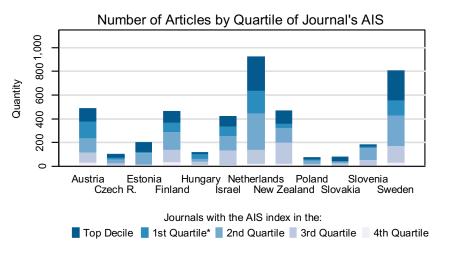


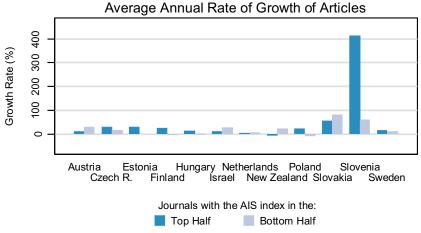


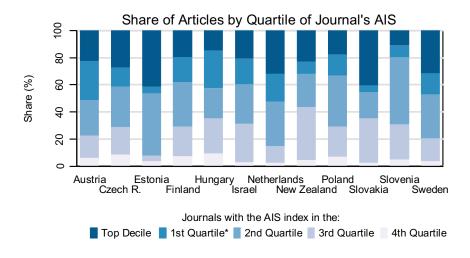
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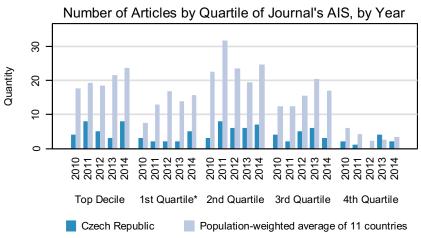
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RESPIRATORY SYSTEM





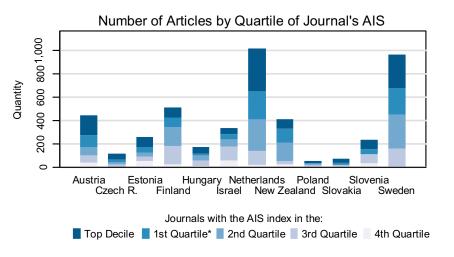


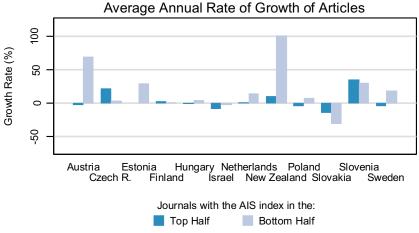


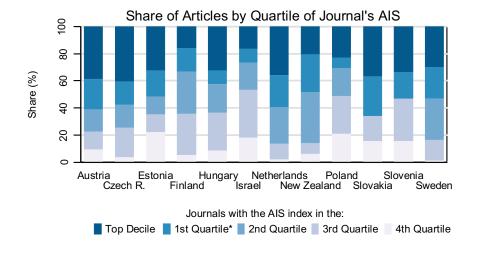
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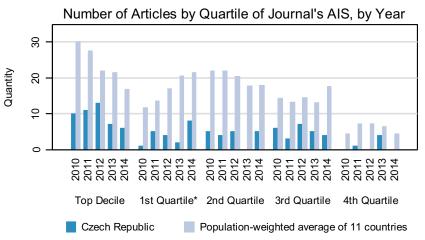
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RHEUMATOLOGY





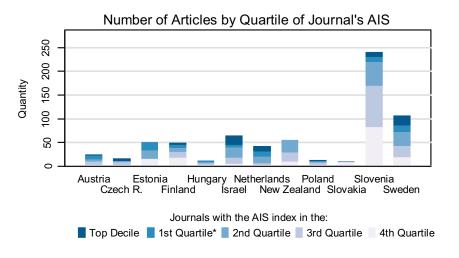


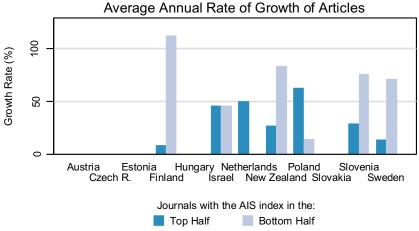


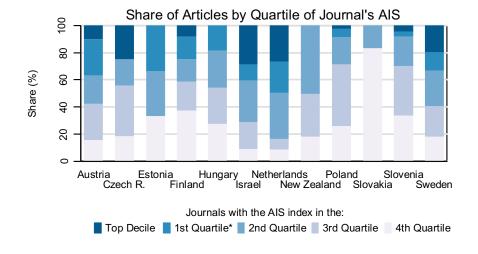
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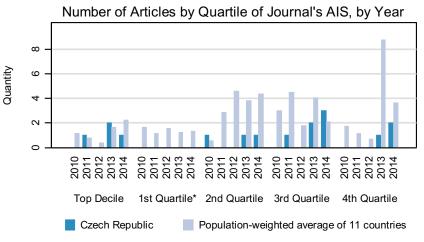
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ROBOTICS





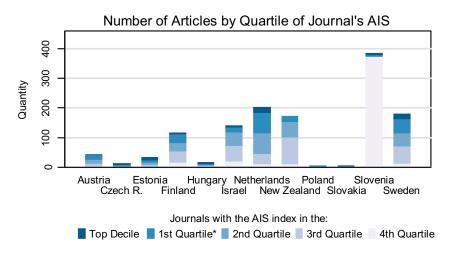


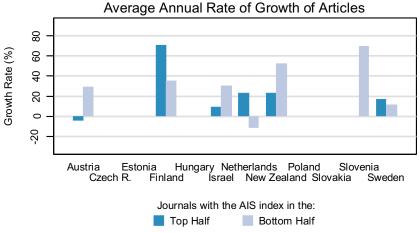


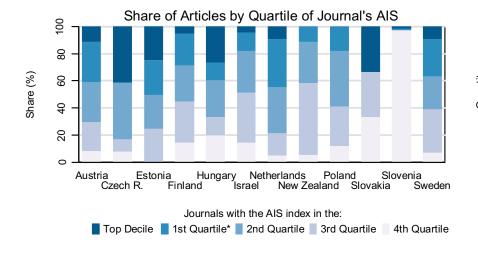
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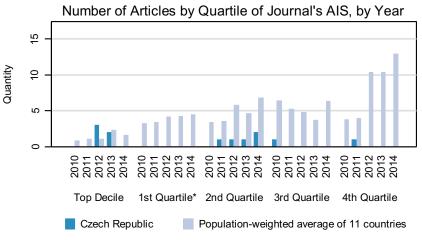
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SOCIAL ISSUES





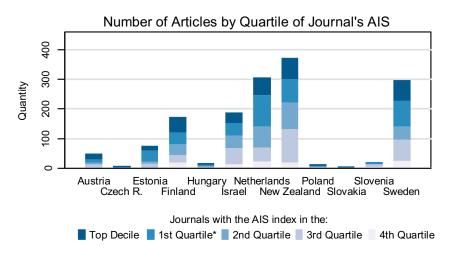


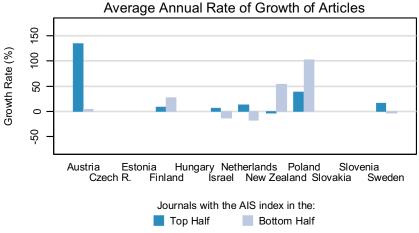


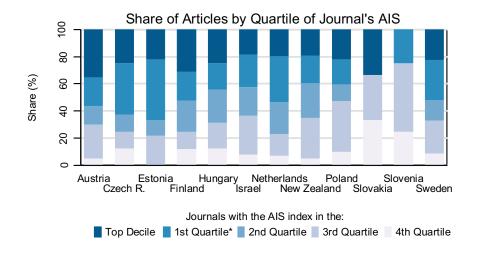
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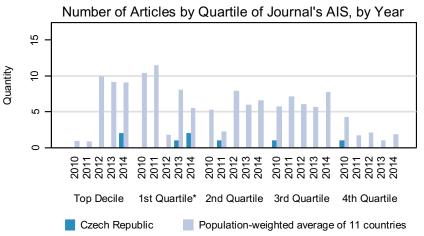
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SOCIAL SCIENCES, BIOMEDICAL





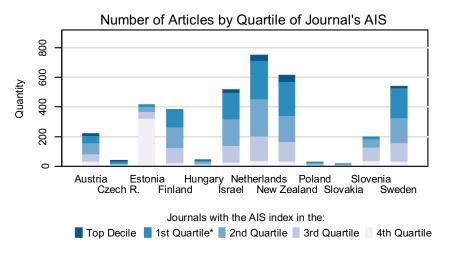


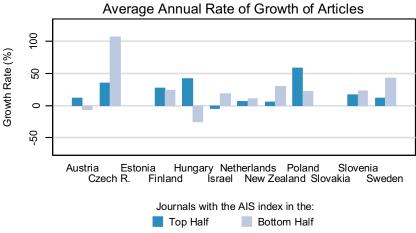


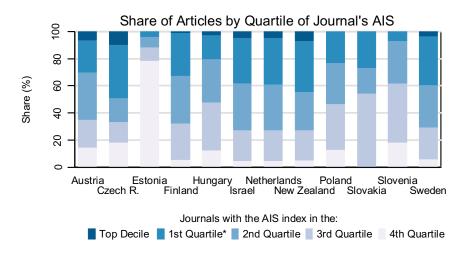
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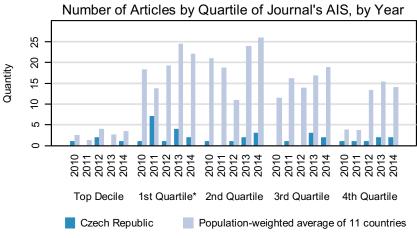
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SOCIAL SCIENCES, INTERDISCIPLINARY





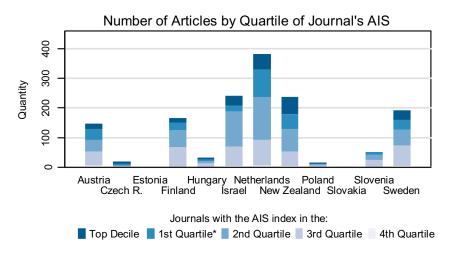


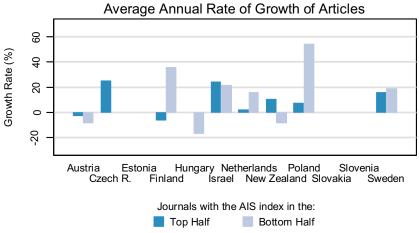


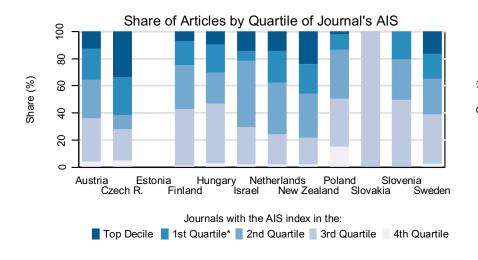
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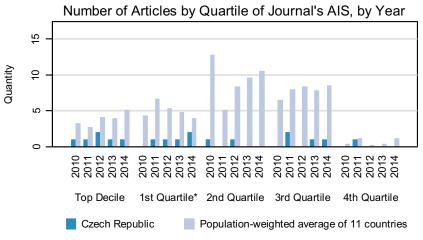
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SOCIAL SCIENCES, MATHEMATICAL METHODS





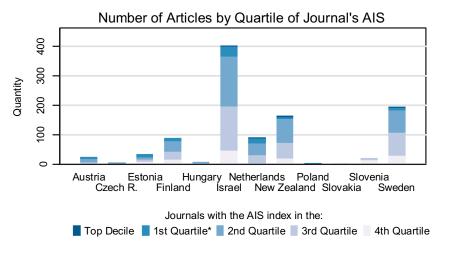


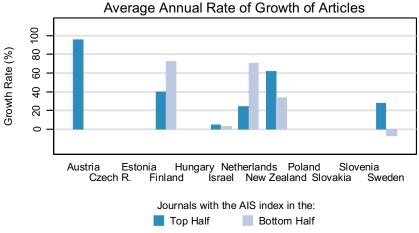


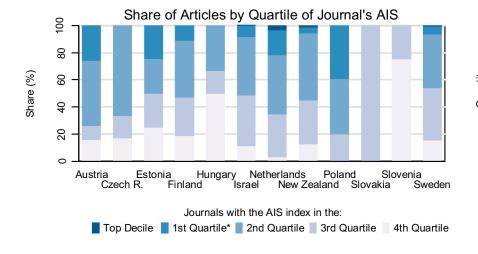
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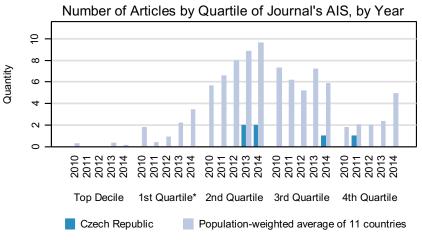
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SOCIAL WORK





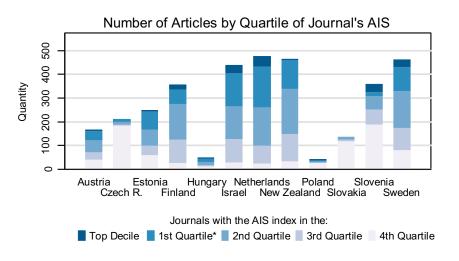


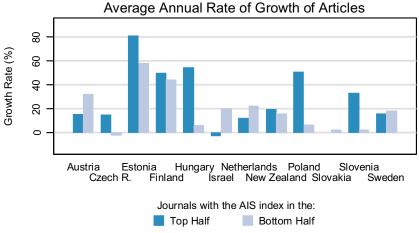


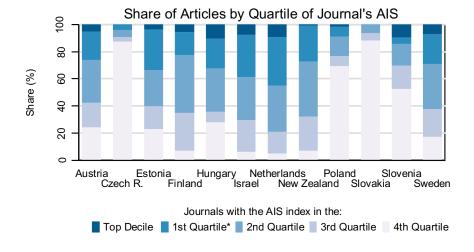
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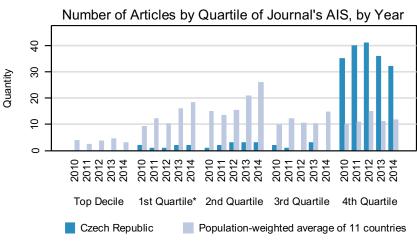
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SOCIOLOGY





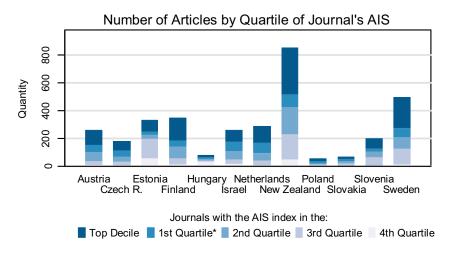


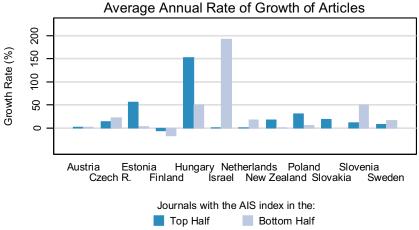


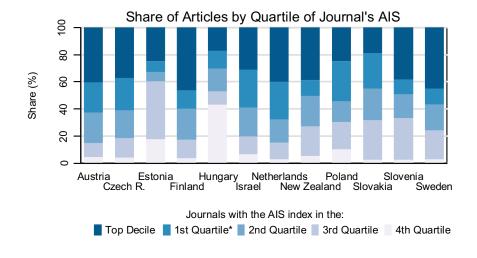
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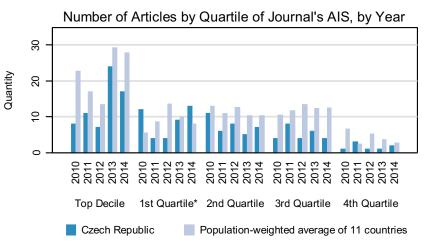
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SOIL SCIENCE





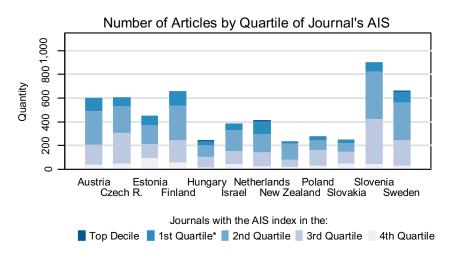


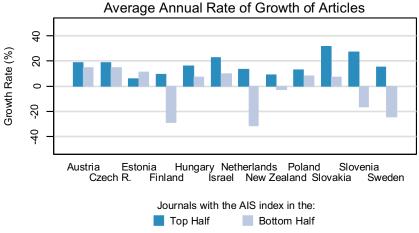


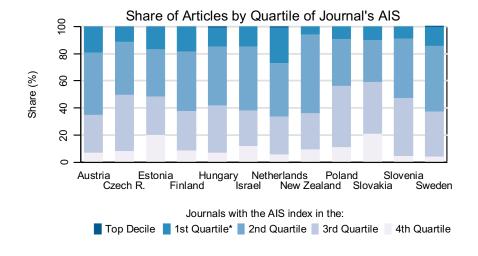
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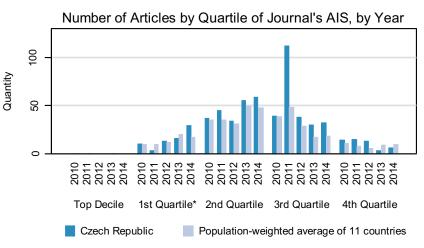
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SPECTROSCOPY





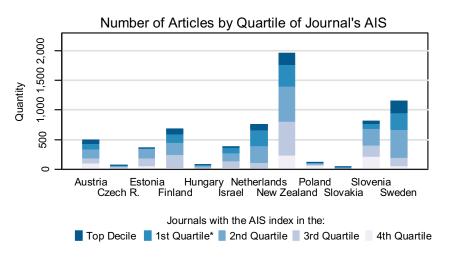


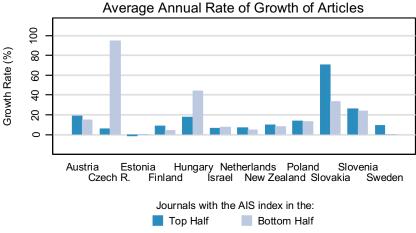


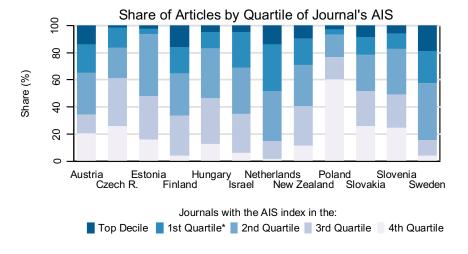
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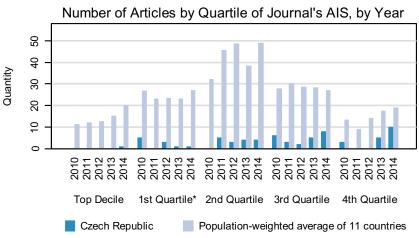
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SPORT SCIENCES





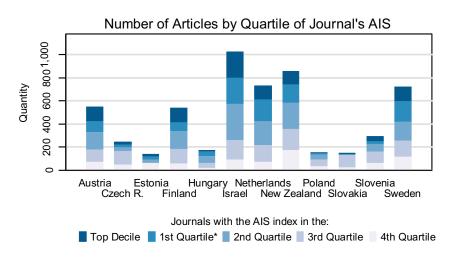


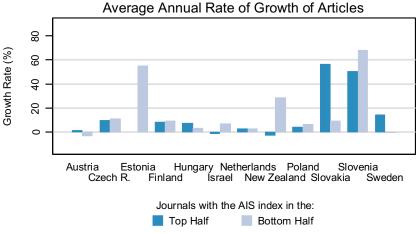


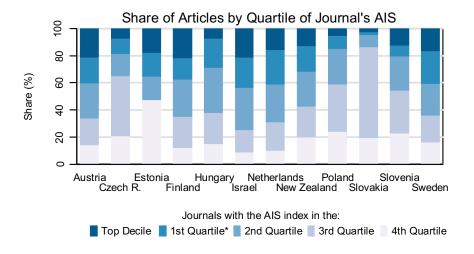
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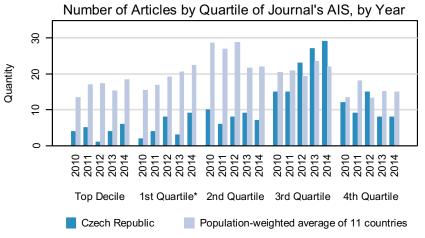
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STATISTICS & PROBABILITY





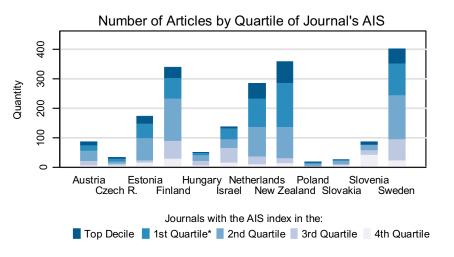


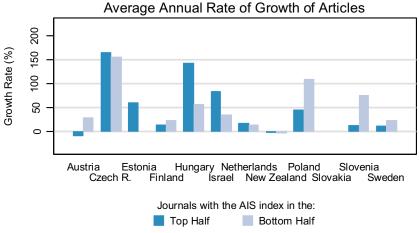


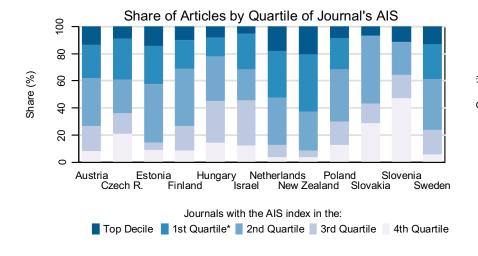
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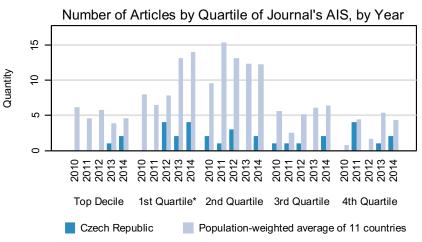
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SUBSTANCE ABUSE





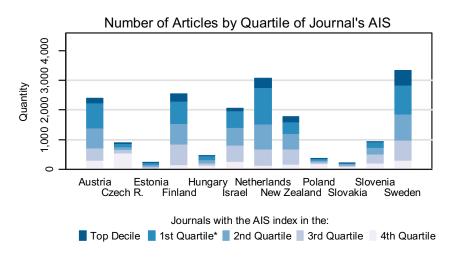


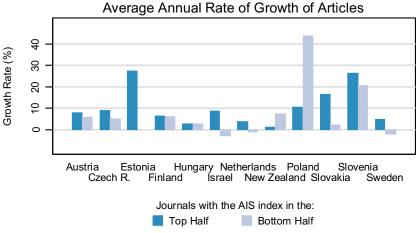


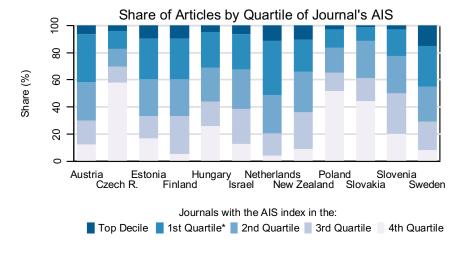
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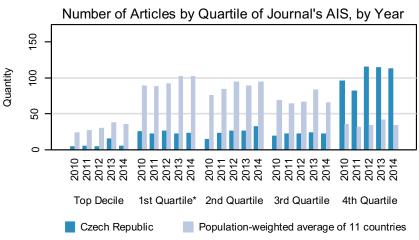
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SURGERY





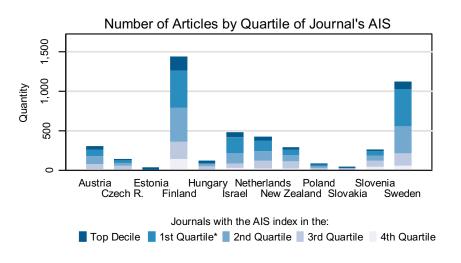


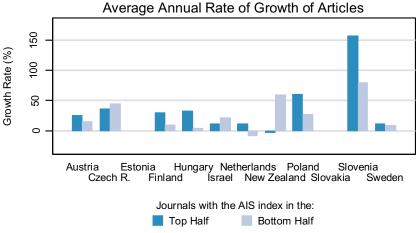


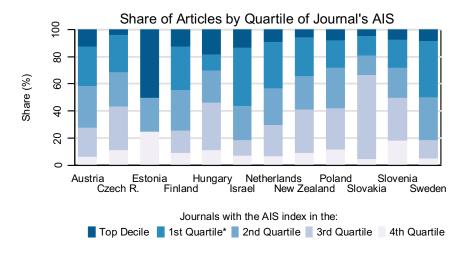
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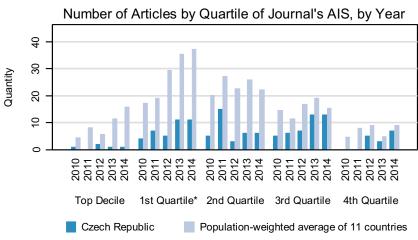
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TELECOMMUNICATIONS





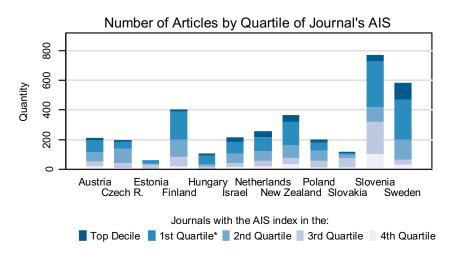


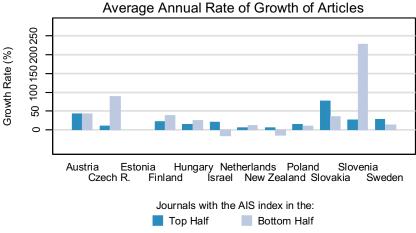


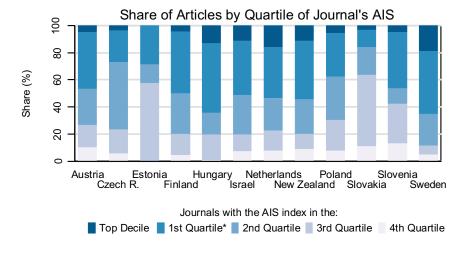
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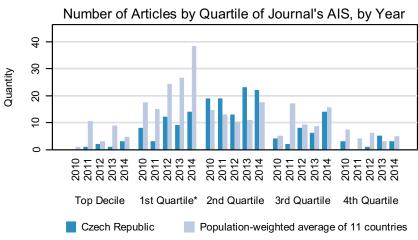
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THERMODYNAMICS





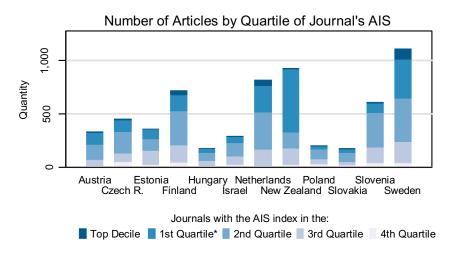


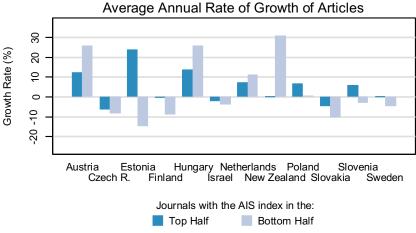


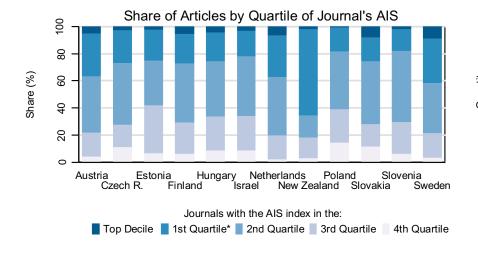
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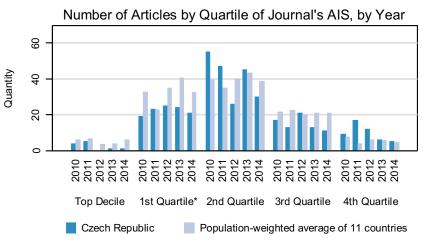
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TOXICOLOGY





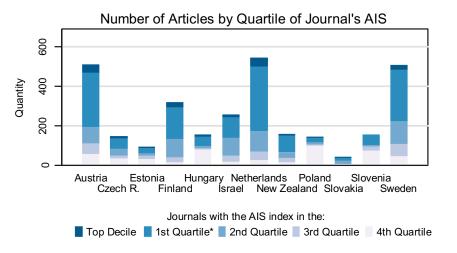


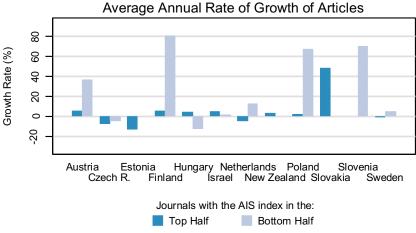


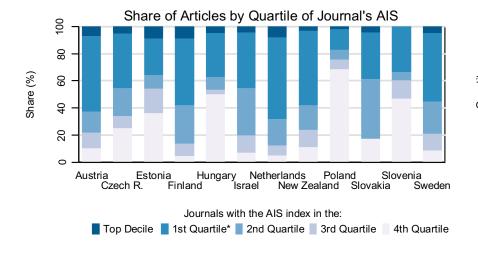
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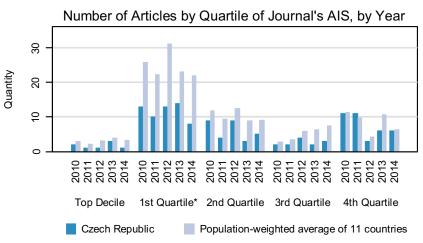
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TRANSPLANTATION





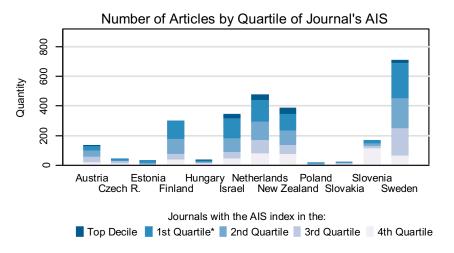


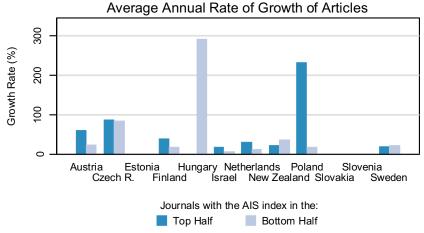


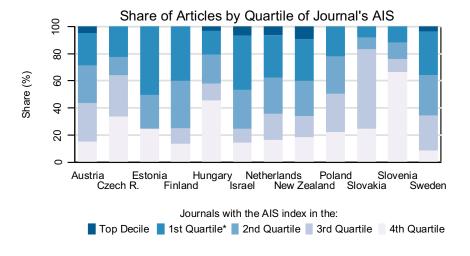
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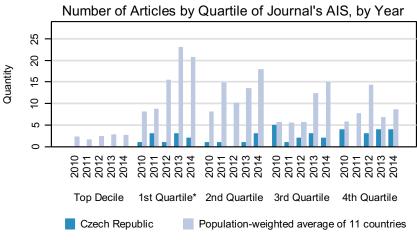
* 1st Quartile excludes the Top Decile

TRANSPORTATION





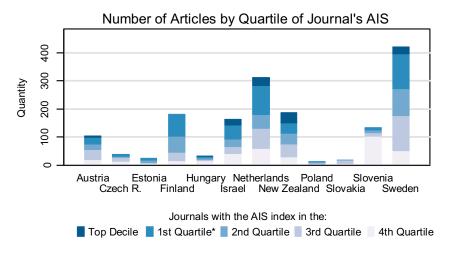


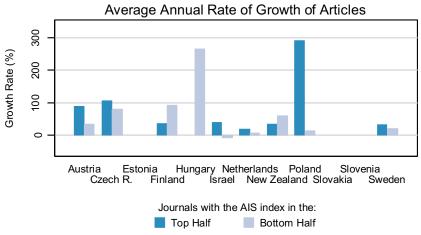


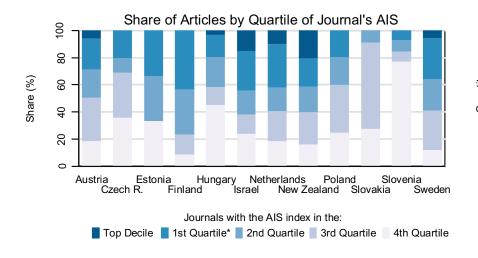
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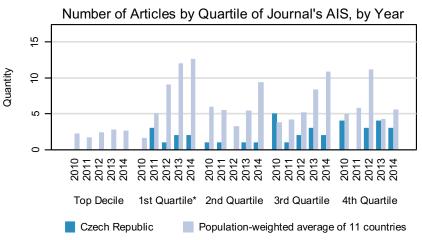
* 1st Quartile excludes the Top Decile

TRANSPORTATION SCIENCE & TECHNOLOGY





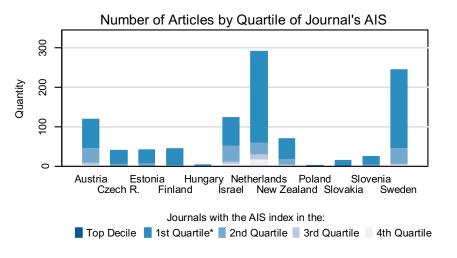


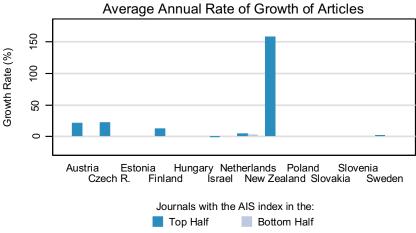


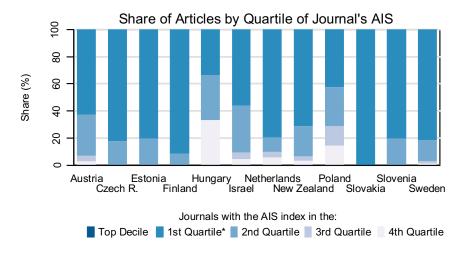
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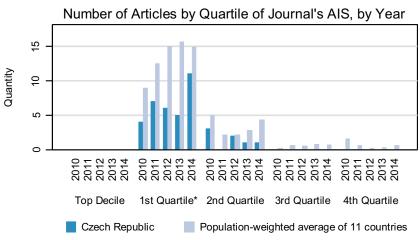
* 1st Quartile excludes the Top Decile

TROPICAL MEDICINE





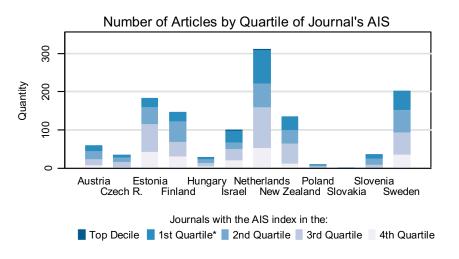


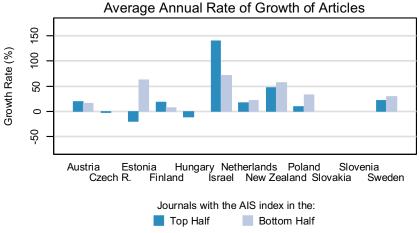


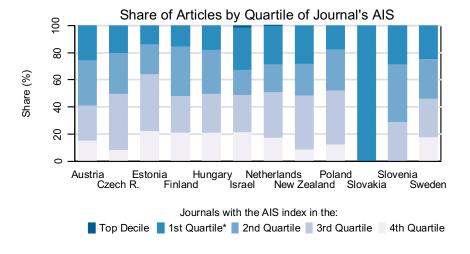
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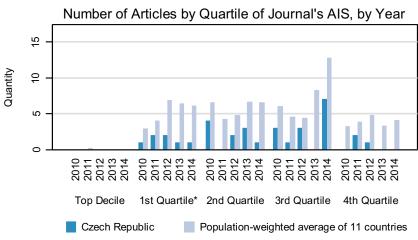
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URBAN STUDIES





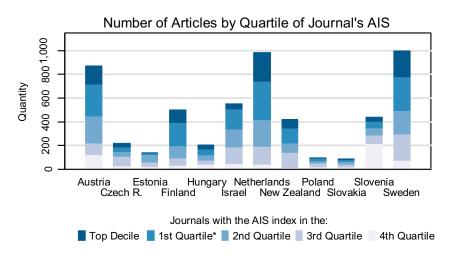


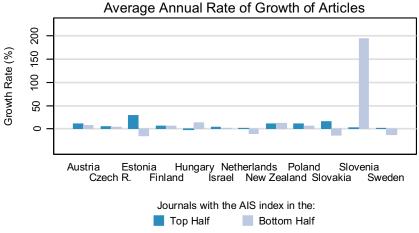


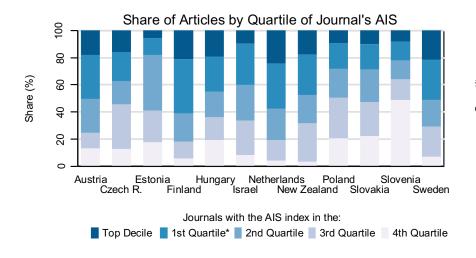
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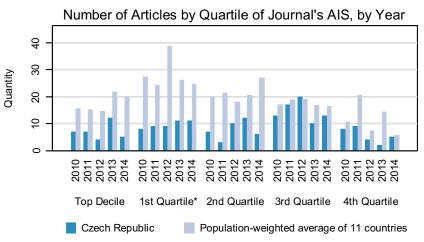
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UROLOGY & NEPHROLOGY





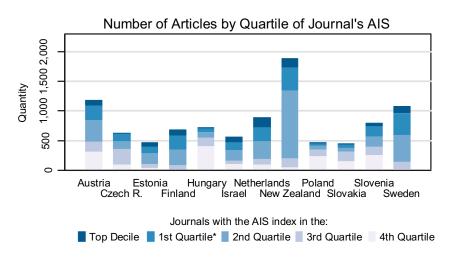


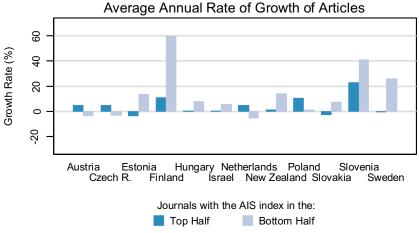


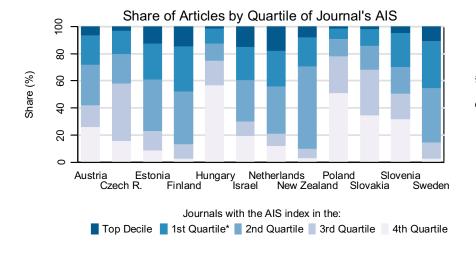
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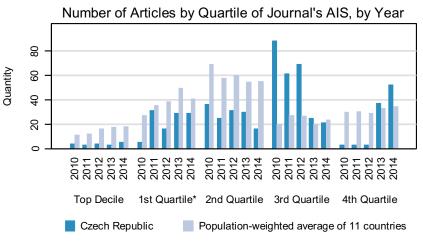
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VETERINARY SCIENCES





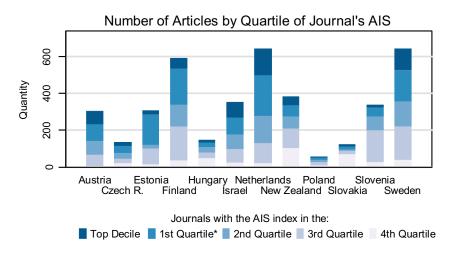


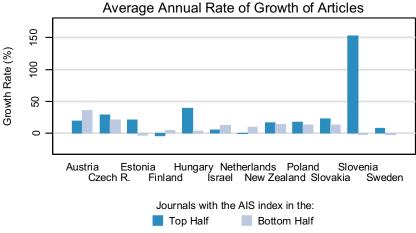


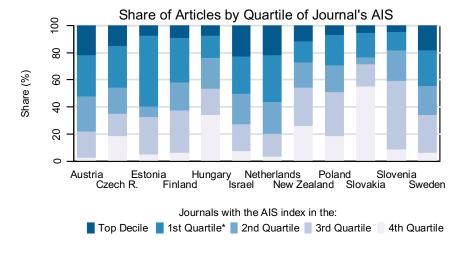
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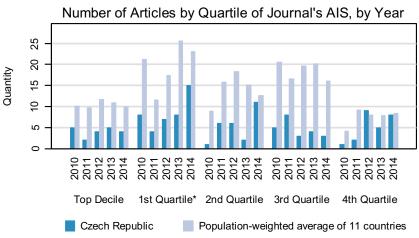
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VIROLOGY





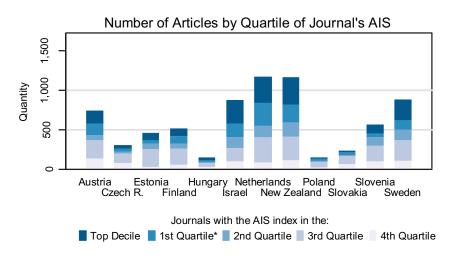


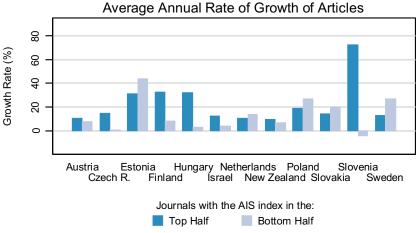


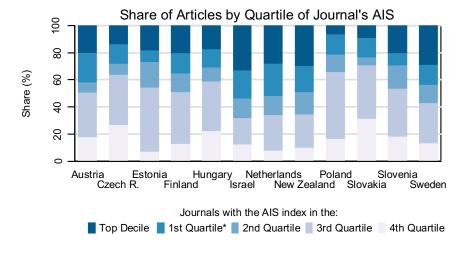
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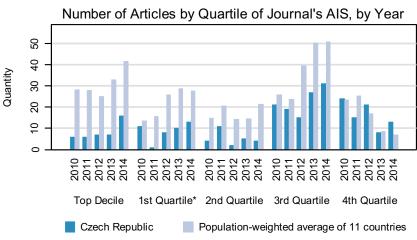
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WATER RESOURCES





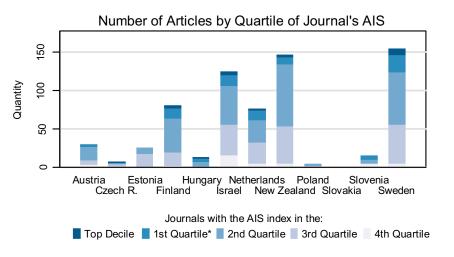


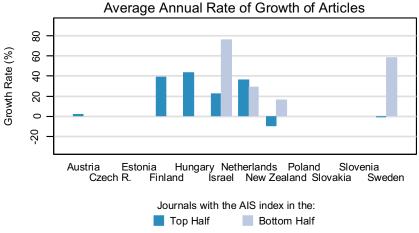


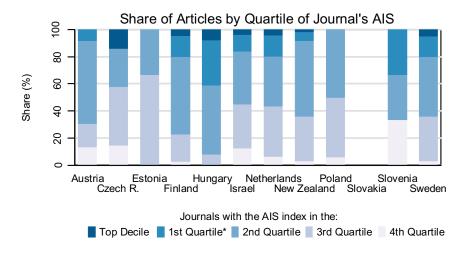
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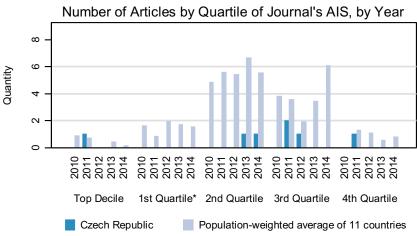
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WOMEN'S STUDIES





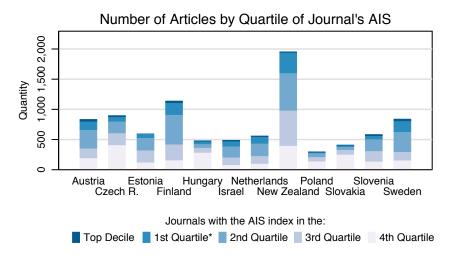


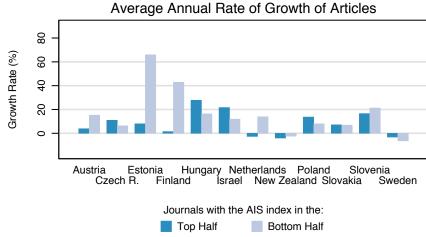


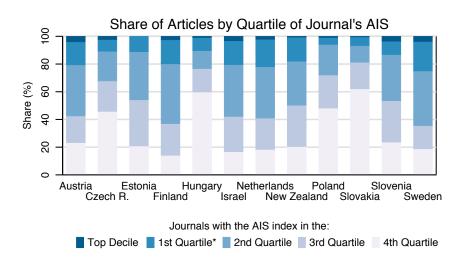
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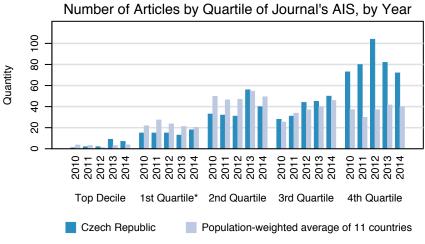
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ZOOLOGY









Notes:

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An International Comparison of the Quality of Academic Publication Output in the Czech Republic

Studie Institutu pro demokracii a ekonomickou analýzu (IDEA)

O IDEA

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IDEA je součástí akademického pracoviště CERGE-EI a vznikla z iniciativy a pod vedením prof. Jana Švejnara.

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- 2. Využívání nejvhodnějších teoretických a praktických poznatků snaha o rozvinutí postupů na základě nejlepších teoretických i praktických poznatků (z České republiky i ze zahraničí).
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IDEA is led by its founder, Prof. Jan Švejnar, and forms part of the CERGE-EI research centre.

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- 1. We build consensus on the basis of intellectual openness we believe in a free competition of ideas, are open to initiatives from various parts of the world, and constantly review existing opinions in the light of new challenges.
- 2. We make use of the most appropriate theoretical and empirical findings, and strive to develop methods based on the best theoretical and practical knowledge (both from the Czech Republic and from abroad).
- 3. We focus on creating effective policy and strategy for the Czech Republic, complementing academic institutions by producing materials in a constructive, practical format.

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