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Mezinárodní srovnání kvality publikačního výkonu vědních oborů v České republice

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Upozornění: Tato studie reprezentuje pouze názory autorů, a nikoli oficiální stanovisko Národohospodářského ústavu AV ČR, v. v. i. či Centra pro ekonomický výzkum a doktorské studium UK v Praze (CERGE).

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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Studie 12 /2015

Mezinárodní srovnání kvality publikačního výkonu vědních oborů v České republice¹

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

Shrnutí

V nedávné studii Jurajda a Münich (2015)⁴ 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.

¹ Tato studie vznikla díky podpoře AV ČR v rámci Strategie AV21. Autoři děkují ing. J. Kovaříkovi za spolupráci při získávání informací z WoS.

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³ Biofyzikální ústav AV ČR, v. v. i.

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



Study 12 /2015

An International Comparison of the Quality of Academic Publication Output in the Czech Republic⁵

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

Summary

In the recent study Jurajda a Münich. (2015).8 we presented a field-by-field comparison of Czech research publication output. This comparison of the relative strength of output by research institutes in each field within the Czech Republic (CR), could not comment on which Czech institutes are working at international level, and which lag behind their foreign counterparts. It is possible, for example, that an institute that is not at the forefront of its field in the CR may nevertheless be performing research at a standard comparable with international competitors, because it is working in a field in which the Czech Republic is performing very high level research. In this study we offer a first step towards comparing the research output of Czech institutes on an international scale: we compare the publication output of each research field, overall, in the Czech Republic with its international equivalent. Our comparison is based on articles published between 2010 and 2014 which are 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 native language. Five of the countries are European countries previously within the Soviet bloc, four are Western European countries and two are non-European countries.

Unlike most similar international bibliometric comparisons, ours does not only indicate the overall quantity of research publications noted in WoS, but also the quality of these publications. This enables us to compare Czech research fields both in terms of overall output and in terms of excellent output. We are also able to show how the international standing of Czech research fields has changed over time.

⁵ This study was made possible by support from the CAS within its "AV21" Strategy. The authors would like to thank ing. J. Kovařík for his help obtaining information from WoS.

⁶ Think-tank IDEA at CERGE-EI, a joint academic workplace of the The Economics Institute of the Czech Academy of Sciences and the Centre for Economic Research and Doctoral Studies, Charles University in Prague.

⁷ Institute of Biophysics of the CAS, v.v.i.

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

Charakter našeho srovnání

Většina mezinárodních bibliometrických srovnání je založena na snadno spočitatelných, ale mnohdy zavádějících bibliometrických ukazatelích. Nevhodným, byť stále rozšířeným ukazatelem publikační výkonnosti zemí, je např. prostý počet publikovaných článků sečtený napříč obory s velmi odlišnou publikační praxí, především přirozenou publikační frekvencí (tj. obvyklým počtem článků na autora a rok). Takové součty jsou ovlivněny oborovou skladbou výzkumu, která se mezi zeměmi liší. V našem srovnání se proto striktně držíme srovnání v rámci oborů, navíc oborů poměrně úzce definovaných. Vliv rozdílů v publikační praxi je tím výrazně snížen, byť ne zcela eliminován. O

Ukazatele prostého počtu článků, byť srovnávané pouze v rámci oborů, zastírají potenciálně obrovské rozdíly v kvalitě, významu a přínosech v nich publikovaných vědeckých poznatků. Naším cílem je proto nabídnout srovnání založená na schopnosti publikovat špičkový výzkum. Jako měřítko kvality publikací se často používá ukazatel průměrné citovanosti článků. Typickým příkladem je relativní citační index oboru (RCIO). RCIO poměřuje průměrnou citovanost článků dané země vydaných v určitém roce v časopisech určitého oboru s průměrnou citovaností všech článků publikovaných v daném roce v daném oboru na celém světě. Takto konstruovaný ukazatel však neumožňuje nahlédnout, zda jeho například nízká hodnota plyne z absence vysoce citovaných prací nebo z neobvykle vysokého počtu nízko citovaných článků v dané zemi (například díky existenci národních časopisů zařazených do databáze WoS). Za určitou hodnotou RCIO navíc může stát několik málo (pro daný obor netypických WoS) článků nebo naopak tisíce WoS článků, což je také velmi zásadní informace pro řízení VaV. Konečně fakt, že sledujeme články publikované v nedávných letech (do roku 2014), omezuje možnosti sledování jejich citačního dopadu.

V našem srovnání se proto zaměřujeme na snadno interpretovatelný počet kvalitních publikací. Sledujeme tedy nejen celkový publikační výkon daného oboru, ale také výkon v časopisech, které vykazují obecně vysokou úroveň citovanosti, a tedy obecně vysokou

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⁹ Využíváme oborové dělení *WoS Categories*, které rozlišuje celkem 173 oborů ve skupině Sciences a 55 oborů ve skupině Social Sciences.

¹⁰ Například teoretický výzkum vykazuje v rámci mnoha oborů výrazně nižší publikační frekvence na autora než výzkum stejného oboru empiricky orientovaný, kde hlavní význam hrají výsledky měření.

¹¹ Řada studií dokladuje, že výzkum publikovaný v relativně malé skupině špičkových časopisů má významně větší typické dopady než výsledky publikované v časopisech ostatních. Viz např. Garfield (1996), Ioannidis (2006), Meho (2007).

náročnost recenzního řízení. Pro každý obor nabízíme detailní informace o dynamice jeho výkonu v mezinárodním srovnání.

Metodologie

Do analýzy jsme zahrnuli pouze publikace publikované v období pěti let 2010-2014, které jsou vedeny v databázi WoS jako *Articles*. Určité zemi je článek započítán v případě, kdy alespoň jeden z autorů v údajích WoS vykazuje afiliaci s adresou v dané zemi. To znamená, že článek více autorů s afiliacemi různých zemí je započítán každé zemi z našeho srovnání, která se mezi afiliacemi autorů nachází alespoň jednou. Pokud je časopis, kde článek vyšel, zařazen do více oborů WoS, je daný článek započítán v každém z těch oborů.

Jako měřítko kvality publikací využíváme citační index časopisu *Article Influence Score* (AIS). AIS je konstruován na základě citovanosti článků tak, že citacím z významnějších časopisů je dávána vyšší váha. AIS časopisu je tak významně korelován s vědeckým renomé časopisu, což souvisí i s náročností recenzního řízení. Citační indexy časopisů typu AIS není radno používat jako měřítko významu a kvality při hodnocení jedné nebo několika málo publikací (např. v případě hodnocení jednotlivých vědců). Je to dáno tím, že citovanost konkrétního článku (jeho význam), se snadno může od průměrné citovanosti článků v daném časopise výrazně odchylovat. Avšak v případě posuzování většího počtů článků, což je případ naší studie, je tento problém zkresleného odhadu kvality redukován. 12

Každý nalezený článek jsme zařadili do jednoho ze čtyř kvartilů časopisů seřazených v daném oboru a roce podle hodnoty AIS.¹³ Zvlášť navíc sledujeme i počty článků v nejvyšším decilu podle AIS.

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. Celkové počty článků daného oboru jsme pro každou srovnávanou zemi normalizovali na populaci dané země, tj. vynásobili poměrem POP_{čr}/POP_i, kde POP_{čr} je populace ČR a POP_i je populace

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¹² Alternativním způsobem hodnocení kvality výzkumu je proces *peer review*. V případě hodnocení vědeckých výsledků má oproti bibliometrickým ukazatelům řadu výhod.

¹³ Je použito řazení podle časopisů nikoliv podle článků v nich.

srovnávané země *i*, tak, aby naše srovnání nezatěžoval efekt rozdílné velikosti zemí.¹⁴ Další přirozenou možností je normalizaci provádět například pomocí hrubého domácího produktu v paritě kupní síly. Tabulka 1 ukazuje relativní velikost populace a relativní velikost HDP srovnávaných zemí vůči ČR.¹⁵ Je zřejmé, že normalizační koeficienty dle populace se od těch založených na HDP značně liší. Takže například skutečný počet publikací Rakouska, které má menší populaci než ČR, je korekcí na počet obyvatel zvýšen o 29 %, zatímco korekce na HDP by naopak vedla k údaji nižšímu o 20 %, protože HDP Rakouska v paritě kupní síly je o 20 % vyšší než HDP České republiky.¹⁶

Tabulka 1: Velikost ČR vůči srovnávaným zemím podle populace a HDP

	Korekční koeficienty				
	Populace	HDP			
Rakousko	1.29	0.80			
Česká republika	1.00	1.00			
Estonsko	8.30	8.74			
Finsko	2.06	1.42			
Maďarsko	1.05	1.27			
Izrael	1.54	1.16			
Nizozemí	0.63	0.39			
Nový Zéland	2.51	1.95			
Polsko	0.26	0.33			
Slovensko	1.82	2.03			
Slovinsko	5.12	5.15			
Švédsko	1.21	0.70			

Zdroj: Výpočty autorů podle dat z OECD (2014) a OECD (2015)

Oborové přehledy

Základem našeho srovnání jsou oborové listy uvedené v Příloze. Strukturu oborových listů a interpretaci údajů v nich obsažených osvětlujeme na příkladu oborů *Chemistry analytical* a *Agricultural economics and Policy*.

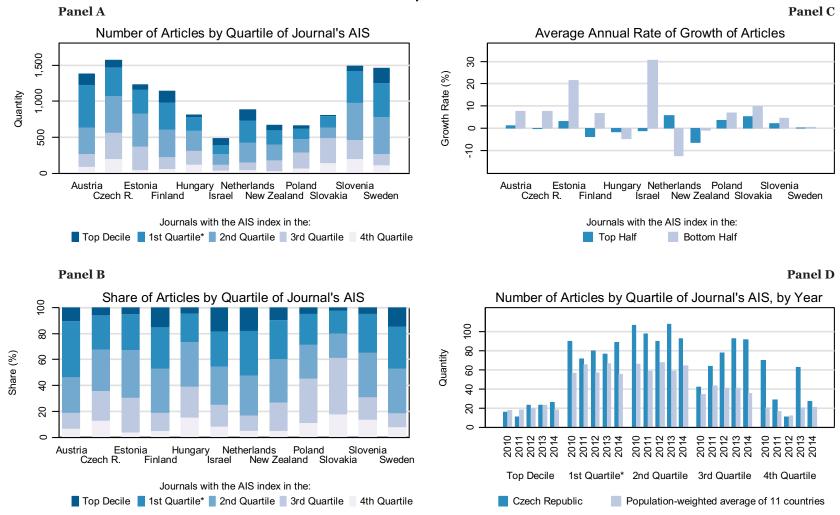
¹⁴ POP odpovídá populaci ve věku 15-65 v roce 2014.

¹⁵ HDP v roce 2014, US \$, konstantní ceny, konstantní PPP, referenční rok 2010.

¹⁶ V ideálním případě by samozřejmě bylo vhodné oborové údaje normalizovat k mezinárodně srovnatelnému objemu výdajů na výzkum v daném oboru nebo k počtu vědeckých pracovníků daného oboru. Nejenže podobné mezinárodně srovnatelné údaje nejsou k dispozici, ale i samotné stanovení příslušnosti konkrétních osob a prostředků ke konkrétnímu oboru lze odhadovat jen velmi nepřesně.

Graf 1a

CHEMISTRY, ANALYTICAL



Notes

* 1st Quartile excludes the Top Decile

AIS (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

V Grafu 1a, panel A (vlevo nahoře) formou sloupcových grafů prezentuje pro daný obor počty článků dané země normalizované na populaci ČR v jednotlivých kvartilech a v horním decilu podle AIS. Horní decil představuje články v nejprestižnější desetině oborových časopisů. Aby celková výše grafu pro danou zemi odpovídala celkovému počtu článků, články započítané do horního decilu nejsou započteny do zobrazovaného 1. kvartilu.

Publikační výkon ČR v oboru *Chemistry, analytical* byl ve sledovaném období 2010-2014 nejvyšší mezi dalšími 11 zeměmi zahrnutými do našeho srovnání. Těsně za ČR následují Slovinsko a Švédsko. Pokud bychom normalizovali publikační výkon na HDP (viz. Tabulka 1), byla by ČR v tomto oboru co do celkové produkce ještě výrazněji před Švédskem. Srovnání se Slovinskem by se však téměř nezměnilo, protože normalizační koeficienty ČR a Slovinska pro populaci i HDP jsou téměř totožné. Při normalizaci podle HDP by se ČR přiblížila vyspělým západním zemím z našeho srovnání co do počtu článků v časopisech s vůbec nejvyšším AIS.

Panel B (vlevo dole) prezentuje stejné počty jako Panel A, ale ve formě podílů na celkových počtech článků za danou zemi. Umožňuje tak lépe nahlédnout, jak k celkovému publikačnímu výkonu přispívají publikace v jednotlivých kvartilech AIS. Je například zřejmé, že vysoký celkový publikační výkon ČR v analytické chemii, ve srovnání se Švédskem, Finskem či Rakouskem, je dán vyšším podílem článků ve spodních dvou kvartilech, podobně jako je tomu v ostatních postkomunistických zemích našeho srovnání.

Panel C (vpravo nahoře) ukazuje průměrný meziroční růst¹⁷ normalizovaného počtu článků v období 2010-2014. Růst je uváděn zvlášť pro články z horní a spodní poloviny časopisů daného oboru podle AIS (1. + 2. kvartil, respektive 3. + 4. kvartil, kde 1. kvartil zahrnuje i 1. decil). Je zřejmé, že celkový počet článků v horní polovině časopisů ve většině zemí rostl o pouhých několik procent ročně, kromě Polska, kde byl růst výrazně vyšší (ale výchozí základna Polska byla nízká). Ve spodní polovině časopisů naopak došlo k výraznému růstu počtu článků v řadě zemí, Rakousku, Estonsku a Polsku, včetně ČR.¹⁸ V případě některých oborů nejsou uvedeny růsty v případech, kdy je počet výsledků nízký a v některém z let 2010-2014 byl jejich počet nulový.

¹⁷ Průměrný meziroční růst byl spočítán jako průměr meziročních růstů v období 2010-2014.

¹⁸ Nakolik k celkovému růstu přispěl nárůst počtu časopisů nově zaregistrovaných do databáze WoS v období 2010-2014 a nakolik přispěl nárůst počtu článků v časopisech registrovaných již dříve naše analýza nerozlišuje. Databáze WoS se typicky rozrůstá o časopisy spíše odspodu, tedy o méně renomované časopisy. Přidávání časopisů do databáze WoS však posunuje hranice kvartilů a decilu dle AIS.

Konečně panel D (vpravo dole) srovnává publikační výkon ČR v jednotlivých kvartilech a v horním decilu s průměrem výkonu srovnávaných zemí v jednotlivých letech.¹⁹ Publikační výkon nad mediánem AIS byl ve všech zemích včetně ČR poměrně stabilní. Ve 3. kvartilu však ČR vykazovala výrazný růst.

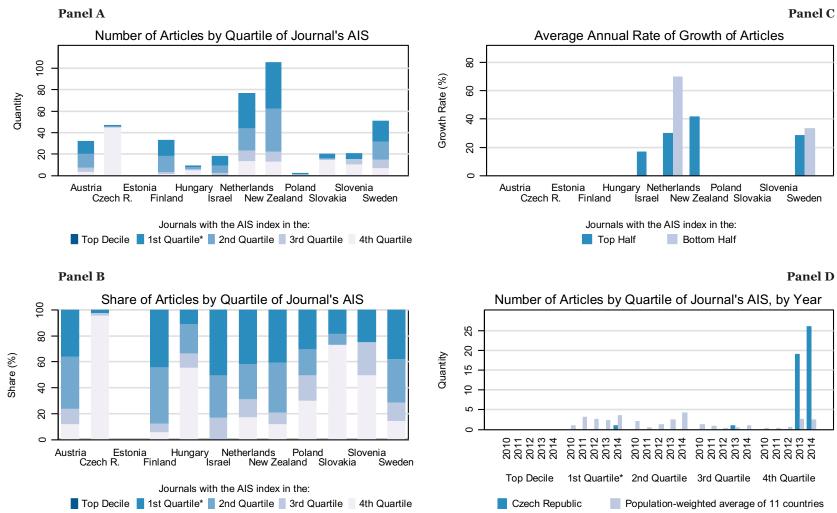
Se situací a vývojem oboru *Chemistry, analytical* výrazně kontrastuje situace v řádově menším oboru *Agricultural economics & policy* v Grafu 1b. Panel A ukazuje výrazně nižší publikační výkon postkomunistických zemí. ČR s čtvrtým nejvyšším výkonem představuje výjimku. Panel B ukazuje, že za touto výjimečností ČR stojí extrémně vysoký podíl článků ve 4. kvartilu časopisech s nejnižším AIS, který pochází především z časopisu *Zemědělská ekonomika*.²⁰ Panel C v tomto oboru pro řadu zemí neukazuje žádný růst s ohledem na velmi nízkou až nulovou výchozí základnu. Panel D dokladuje abnormálnost situace v ČR, kde publikační výkon v nejnižším 4. kvartilu téměř desetkrát převyšuje průměrný publikační výkon v ostatních zemích. Obdobná srovnání pro jednotlivé obory WoS poskytují oborové listy v příloze.

¹⁹ Průměry za srovnávané země jsou počítány z počtů článků po normalizaci na populaci ČR. Země s větší populací tedy do průměru přispívají stejně jako země s menší populací.

²⁰ Z článků publikovaných ve WoS v roce 2014 citovalo práce otištěné v časopise *Zemědělská ekonomika* celkem 54 článků, které vyšly v samotné *Zemědělské ekonomice*, 21 článků citujících tento časopis vyšlo v časopise *Moravian Geographical Reports*, 10 v *Listech cukrovarnických a řepařských* a dalších 10 v místních ekonomických časopisech.

Graf 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

Shrnutí všech oborů

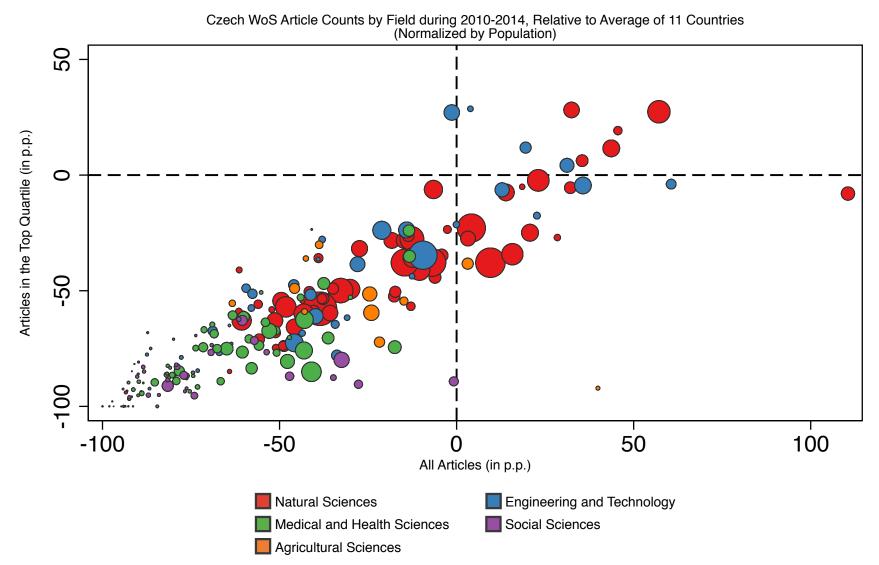
Publikační výkon všech vědních oborů ČR v mezinárodním srovnání ukazuje Graf 2a. WoS výkon každého oboru v Grafu 2a je vyjádřen jako procentní odchylka daného ukazatele za ČR od průměru ukazatele srovnávaných zemí. Na horizontální ose je vynesen celkový publikační výkon (tj. počet článků) vědních oborů v ČR vůči průměrnému publikačnímu výkonu těchto oborů v ostatních zemích.²¹ Na vertikální ose je uveden publikační výkon pouze v excelentních časopisech 1. kvartilu. Velikost oborů v grafu vystihuje podíl publikačního výkonu daného oboru na celkovém publikačním výkonu ČR (bez rozlišení kvartilu AIS časopisů). Odpovídá tedy kombinaci několika faktorů: počtu výzkumníků v daném oboru v ČR, (celosvětově) obvyklé oborové četnosti publikací na výzkumníka a rok v daném oboru (tato četnost se mezi obory až několikanásobně liší) a konečně i případně odlišné celkové publikační výkonnosti výzkumníků v daném oboru v ČR oproti jejich kolegům a kolegyním v daném oboru v zahraničí.

V Grafu 2a barvy oborových symbolů identifikují příslušnost oboru WoS k širokým oborovým skupinám. Nejslabší pozici z pohledu celkového i excelentního publikačního výkonu zaujímá ČR ve skupině *Social Sciences* (fialové symboly). Všechny společenskovědní obory v ČR vykazují nízký celkový a extrémně nízký excelentní publikační výkon, a nachází se proto na grafu hluboko vlevo dole. Podobně jako ve výše diskutovaném oboru *Agricultural Economics & Policy* se společenskovědní obory, např. *Political Science*, vyznačují typicky vysokým podílem časopisecké produkce v Česku vydávaných WoS časopisech, které často vykazují vysoké podíly českých autorů, vysoké podíly článků v českém či slovenském jazyce a vysokou míru sebecitovanosti. K tomuto tématu se vrátíme podrobněji.

Naopak nejlepší pozice ČR zaujímá v oborových skupinách *Natural Sciences* a *Engineering* and *Technology* (červené a modré symboly). Graf 2a odhaluje přibližně lineární vztah mezi celkovým a excelentním publikačním výkonem oborů. Většina oborů však vykazuje relativně vyšší celkovou produkci oproti mezinárodně srovnané produkci ve špičkových časopisech.

 $^{^{\}scriptscriptstyle 21}\,\mathrm{Jde}$ o průměr spočítaný z 11 hodnot pro jednotlivé země.

Graf 2a

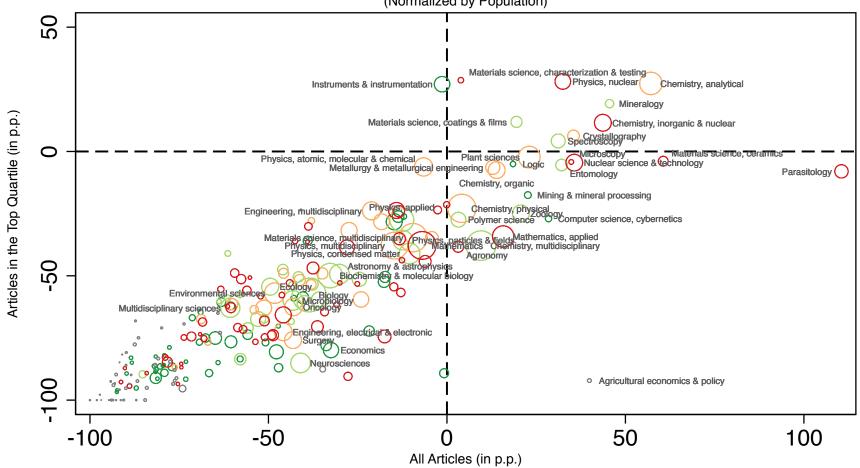


Pozici konkrétních oborů hodných pozornosti ukazuje graf 2b. Barva kroužků v něm identifikuje odchylku tempa růstu počtu článků v daném oboru v ČR od průměrného tempa růstu v oboru všech ostatních zemí.²² Toto značení umožňuje odpovědět na otázku, zda obory, které jsou na tom relativně špatně ve srovnání s mezinárodním průměrem (který z poloviny odpovídá dalším EU zemím z bývalého sovětského bloku) aspoň oproti tomuto mezinárodnímu srovnání svou pozici zlepšují v čase, neboť rostou rychleji než průměr srovnávaných zemí.

²² Tmavě a světle zelená odpovídají vysoce resp. nízce nadprůměrnému růstu; červená a žlutá odpovídají výrazně a mírně podprůměrnému růstu. Obory s příliš nízkou výchozí základnou pro věrohodné stanovení tempa růstu (celkový počet článků v období 2010-2014 byl nižší než 50) jsou vyznačeny barvou šedivou.



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.:

Oborů, jejichž špičkový publikační výkon v ČR převyšuje průměr vybraných zemí, je pouze několik: Chemistry, analytical; Chemistry, inorganic & nuclear; Physics, nuclear²³; Spectroscopy, Crystallography; Material science, coatings & films; Minearology; Instruments & Instrumentation; Material science, characterization and testing. Všechny tyto obory zároveň vykazují nadprůměrně vysoký celkový publikační výkon. Za pozornost stojí poslední dva uvedené obory. Ty charakterizuje nadprůměrně vysoký excelentní výkon, který není doprovázen nadprůměrným výkonem v časopisech menšího významu.

Obor *Parasitology* výrazně vybočuje mezi všemi ostatními obory nadprůměrně vysokým publikačním výkonem v méně významných časopisech a přibližně průměrným výkonem ve špičkových časopisech. Výjimečný, ale jiným způsobem, je již diskutovaný obor *Agricultural economics & policy*. Jeho celkový výkon je v ČR abnormálně vysoký díky vysokému publikačnímu výkonu v domácích časopisech s nízkým AIS (viz. diskuse v předchozí sekci).

Pozici většiny oborů WoS je možno dohledat v sérii grafů 3a-e pro jednotlivé oborové skupiny *Agricultura Sciences*, *Engineering & Technology, Medical Sciences*, *Natural Sciences* a *Social Sciences*. Grafy pro větší přehlednost zobrazují jen ten segment Grafu 2a, kde se české obory dané oborové skupiny vyskytují. Jak jsme již upozornili na příkladu oboru *Agricultural economics & policy*, postavení oborů v mezinárodním srovnání je v případě některých oborů ovlivněno přítomností domácích (českých a slovenských) WoS časopisů, typicky v nejnižším 4. kvartilu, kde většinově publikují autoři s českou afiliací, a které vykazují nízkou mezinárodní citovanost. Pro čtenáře, které by význam těchto časopisů pro mezinárodní oborová srovnání zajímal, nabízíme v příloze Tabulku A1, která prezentuje seznam všech takovýchto časopisů. Z nich 14 WoS řadí do skupiny *Social Sciences* (6 se jich nachází v ekonomických oborech) a kolem 60 do skupiny *Sciences*. Jak tabulka dokladuje, naprostá většina z těchto časopisů patří svou hodnotou AIS do nejnižšího kvartilu a vykazuje poměrně vysokou míru sebe-citovanosti.²⁴ Tyto časopisy

²³ Obor *Physics, nuclear*, je specifický praxí obřích autorských kolektivů článků, kde účast vědců dané země nemusí dostatečně přesně odrážet skutečný vědecký přínos dané země. Obří autorské kolektivy se vyskytují ve větší míře také v oborech *Astronomy & Astrophysics* a *Physics, Particles & Fields*, kde takové autorství může zkreslovat výsledky, protože tyto publikace jdou napříč mnoha zeměmi a jsou většinou v horním kvartilu. Záleží tedy na poměru standardních výsledků a těch od obřích kolektivů – v celosvětovém měřítku je to zanedbatelné; některé české týmy však mají téměř výhradně tyto publikace.

²⁴ Mezi časopisy s extrémní mírou citací pocházejících z prací publikovaných v daném časopise jsou například Československá psychologie, Listy cukrovarnické a řepařské či Česká a slovenská neurologie a neurochirurgie. Naopak velmi nízkou míru sebe-citovanosti vykazují například časopisy Europan Journal of Entomology či Folia Geobotanica.

navyšují celkový publikační výkon ČR, ale není jasné, že všechny mají významný přínos pro světové poznání.

WoS data také umožňují shrnout prezentované rozdíly v oborové struktuře výzkumu mezi námi srovnávanými zeměmi na úrovni oborových skupin. Tabulka 2 ukazuje podíly publikačního výkonu oborových skupin na celkovém výkonu v ČR a ve srovnávaných zemích. Je zřejmé, že české společenské a lékařské vědy mají v mezinárodním srovnání netypicky nízký podíl na celkovém a obzvláště na excelentním publikačním výkonu. ²⁵ Naopak nadprůměrně vysoký podíl v obou dimenzích vykazuje v ČR oblast přírodních věd. Zastoupení oborových skupin technických a zemědělských je v ČR na obvyklé mezinárodní úrovni.

Tabulka 2: Podíly celkového počtu článků a článků v 1. kvartilu v oborových skupinách

Vědní oblast	Všechny	články	Články v 1. kvartilu		
veum oblast	ČR	ČR Ostatní		Ostatní	
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 %	
Celkem	100 %	100 %	100 %	100 %	

Zdroj: výpočty autorů na základě WoS

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²⁵ Nízký podíl společenskovědních oborů na vědeckém výkonu ČR kontrastuje s faktem, že podíl společenskovědních oborů na absolventech vysokých škol je v ČR na běžné mezinárodní úrovni.

Závěrečné poznámky

Efektivní řízení systému VaV na všech jeho úrovních se neobejde bez dobré informovanosti o zaměření, produktivitě a výkonnosti vědních oblastí a oborů. Nedostatečně informovaná rozhodnutí snižují efektivitu využívání veřejných zdrojů jak na úrovni Rady pro výzkum, vývoj a inovace, tak například na úrovni vedení vysokých škol. V této komparativní studii jsme prezentovali aproximaci výzkumného výkonu oborů ČR. Porovnali jsme ukazatele celkového a excelentního publikačního výkonu. Za nízkým publikačním výkonem řady oborů může stát řada faktorů:

- (i) Nízký objem finanční podpory, lidských zdrojů a infrastruktury.
- (ii) Nízká efektivita využívání zdrojů (nízká výzkumná a publikační produktivita).
- (iii) Jiné zaměření výzkumu než na excelentní publikace a tedy jiné formy výstupů než jsou články v časopisech vedených databází WoS (např. větší zaměření na nepublikační aplikované výsledky).

Identifikace role jednotlivých faktorů jde nad rámec možností bibliometrických ukazatelů. Každopádně by bylo zásadně chybné pozorované rozdíly v absolutních hodnotách a trendech publikačního výkonu přisuzovat pouze jednomu z těchto faktorů bez konkrétnějších informací o zdrojích, jejich využívání a zaměření výzkumu.

Výsledky tohoto mezinárodního srovnání navazují na naše nedávné srovnání oborového publikačního výkonu českých výzkumných pracovišť Jurajda a Münich (2015). Při srovnávání oborových výsledků obou studií je třeba mít na paměti, že nejlepší národní pracoviště v oboru, který je na průměrné evropské úrovni, pravděpodobně dosahují nadprůměrné evropské úrovně. Avšak nejlepší národní pracoviště v oboru mezinárodně slabém nemusí nutně dosahovat ani evropského průměru. Avšak lze najít výjimečné případy, kdy v evropsky slabém oboru najdeme pracoviště nadprůměrné evropské úrovně (např. v lékařských vědách nebo v ekonomii).

Reference

Garfield, E. (1996). Significant Scientific Literature Appears In a Small Core of Journals. The Scientist, 10(17), 13-15.

Ioannidis, J. P. (2006). Concentration of the Most-cited Papers in the Scientific Literature: Analysis of Journal Ecosystems. PloS One, 1(1), e5.

Jurajda Š. a Münich, D. (2015). Oborová publikační výkonnost pracovišť výzkumných organizací v České republice v letech 2008-2012. <u>Studie IDEA 5/2015</u>, Praha.

Meho, L. (2007). The Rise and Rise of Citation Analysis. Physics World, 20(1), 32-26

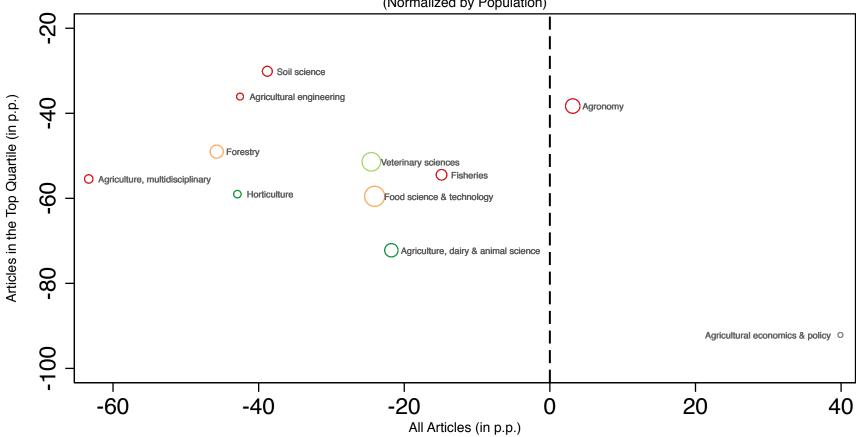
OECD (2014). National Accounts at a Glance 2014. OECD Publishing, Paris.

OECD (2015). Demographic and Labour Market Database. Retrieved from http://stats.oecd.org/.

UNESCO (2015). Distribution of Tertiary Graduates. Education and Literacy Statistics. Retrieved from http://data.uis.unesco.org.

AGRICULTURAL SCIENCES

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

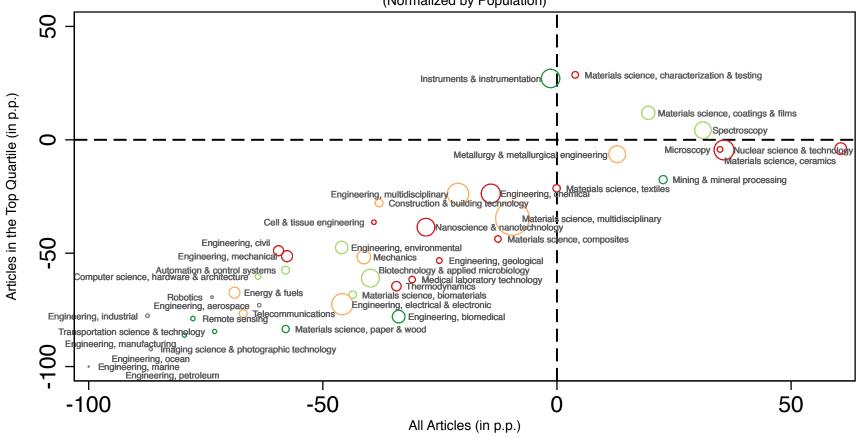


Difference in Growth Rates between the Czech Republic and Avg.:

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

ENGINEERING AND TECHNOLOGY

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

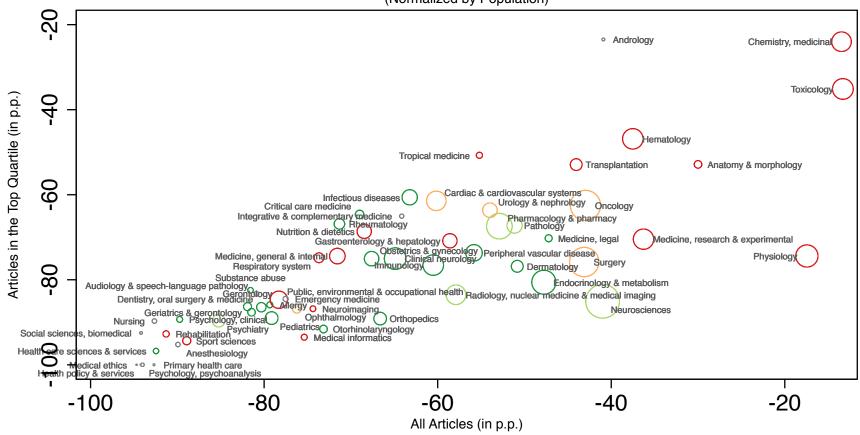


Difference in Growth Rates between the Czech Republic and Avg.:

° >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)

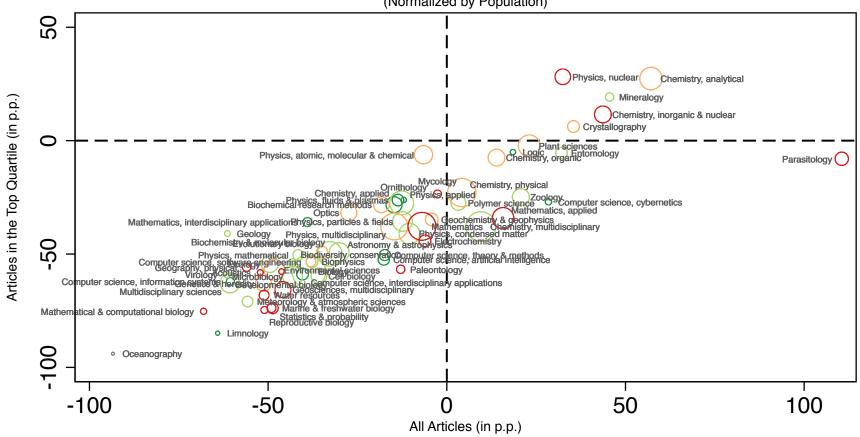


Difference in Growth Rates between the Czech Republic and Avg.:

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

NATURAL SCIENCES

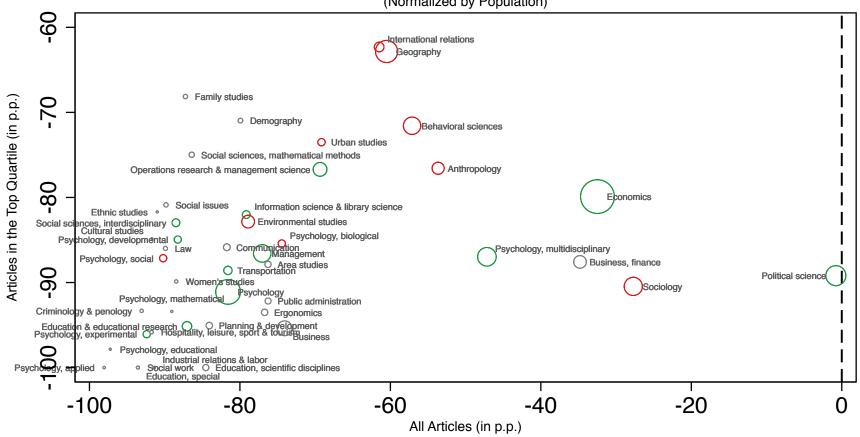
Czech WoS Article Counts by Field during 2010-2014, Relative to Average of 11 Countries (Normalized by Population)



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

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.:

Tabulka A1: Seznam v Česku a na Slovensku vydávaných časopisů zahrnutých v databázi WoS.

Společenské vědy

Časopis	Obor WoS (Category Name)	ČR/SR	Počet článků v roce 2014*	Kvartil dle IF (vč. sebecitací časopisu)	Kvartil dle AIS (vč. sebecitací časopisu)	Sebecitovanost (%)**
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

Přírodní vědy 1/3

Časopis	Obor WoS (Category Name)	ČR/SR	Počet článků v roce 2014*	Kvartil dle IF (vč. sebecitací časopisu)	Kvartil dle AIS (vč. sebecitací časopisu)	Sebecitovanost (%)**
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

Přírodní vědy 2/3

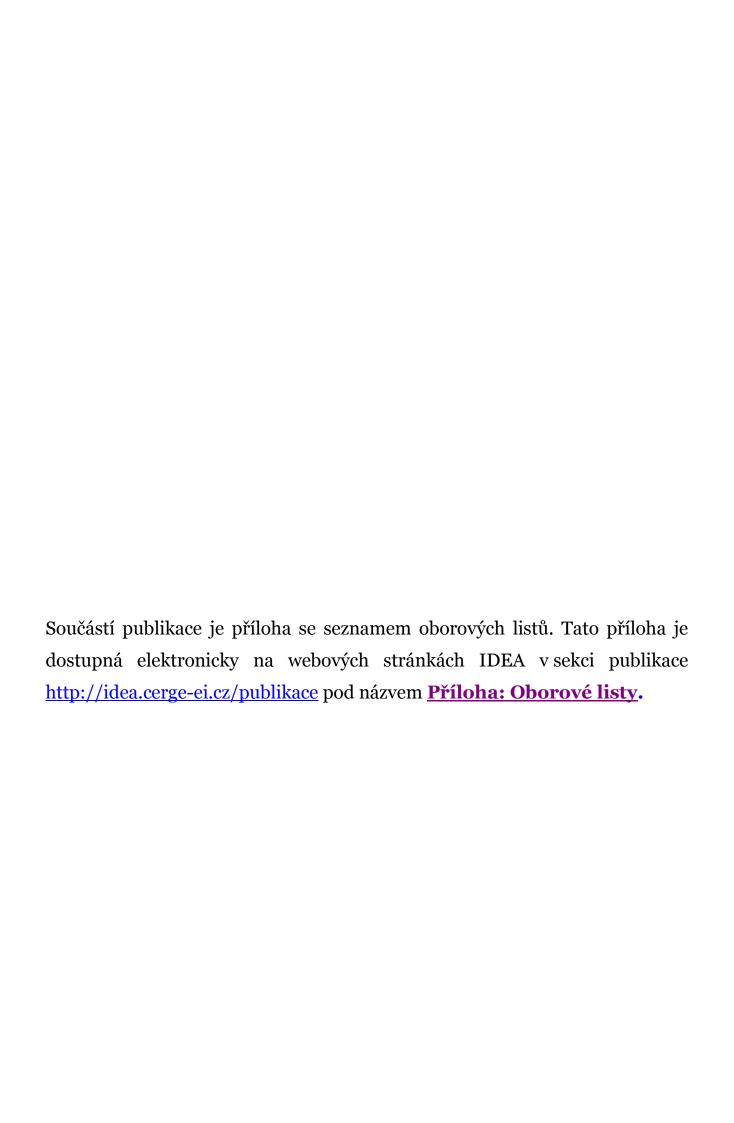
Časopis	Obor WoS (Category Name)	ČR/SR	Počet článků v roce 2014*	Kvartil dle IF (vč. sebecitací časopisu)	Kvartil dle AIS (vč. sebecitací časopisu)	Sebecitovanost (%)**
Acta Geodynamica et Geomaterialia	Geochemistry & Geophysics	ČR	34	Q4	Q3/4	27
	Mining & Mineral Processing	čp		Q4		
Studia Geophysica 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	0

Přírodní vědy 3/3

Časopis	Obor WoS (Category Name)	ČR/SR	Počet článků v roce 2014*	Kvartil dle IF (vč. sebecitací časopisu)	Kvartil dle AIS (vč. sebecitací časopisu)	Sebecitovanost (%)**
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

^{*} Počet článků v roce 2014 jako podíl na průměrném počtu článků s českou afiliací za rok v období 2010-2014

^{**} Podíl sebecitací v letech 2012-2013, za které se počítá IF za rok 2014.



Předchozí publikace

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Příloha: Oborové listy

Seznam oborových listů (křížové odkazy)

A	Chemistry, Analytical	E	F
Acoustics	Chemistry, Applied	Ecology	Family Studies
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>	Forestry
Science	<u>Chemistry, Organic</u>	Education, Scientific Disciplines	G
Agriculture, Multidisciplinary	Chemistry, Physical	Education, Special	Gastroenterology and Hepatology
Agronomy	Clinical Neurology	<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	<u>Geography</u>
Andrology	<u>Intelligence</u>	Energy and Fuels	Geography, Physical
Anesthesiology	Computer Science, Cybernetics	Engineering, Aerospace	<u>Geology</u>
<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	<u>History of Social Sciences</u>
Biodiversity Conservation	Construction and Building	Engineering, Mechanical	<u>Horticulture</u>
Biology	<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
Microbiology	<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>
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Cardiac and Cardiovascular Systems	<u>Dentistry</u> , <u>Oral Surgery and Medicine</u>	<u>Ethics</u>	<u>Infectious Diseases</u>
Cell and Tissue Engineering	<u>Dermatology</u>	Ethnic Studies	Information Science and Library
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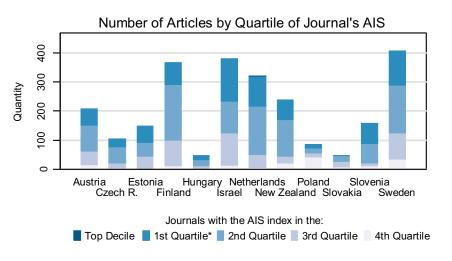
Instruments and Instrumentation Meteorology and Atmospheric Physics, Mathematical Social Sciences, Mathematical **Integrative and Complementary** Physics, Multidisciplinary Methods Sciences Medicine **Microbiology** Physics, Nuclear Social Work Physics, Particles and Fields Sociology **International 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

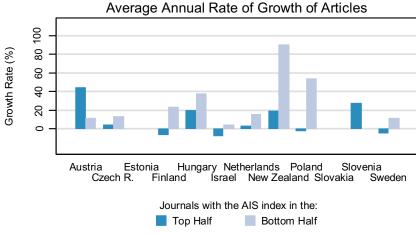
Social Sciences, Interdisciplinary

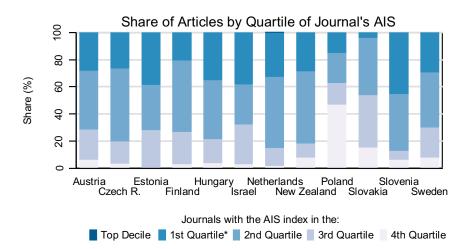
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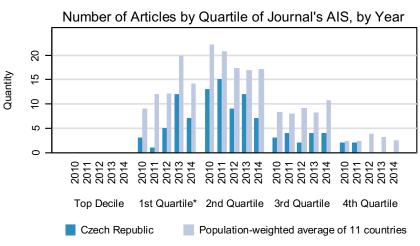
Engineering

ACOUSTICS





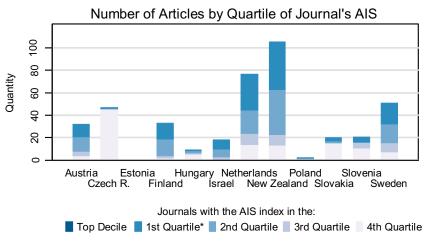


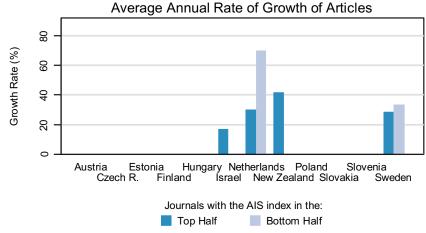


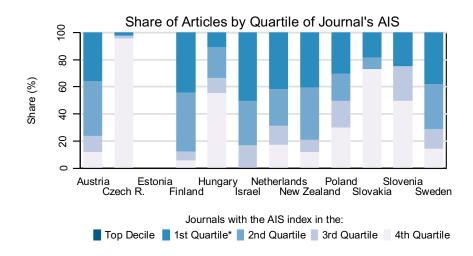
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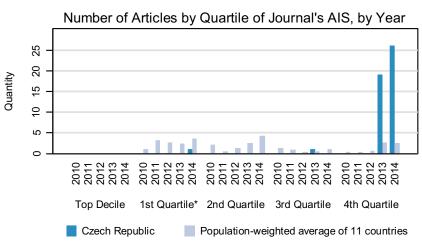
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AGRICULTURAL ECONOMICS & POLICY





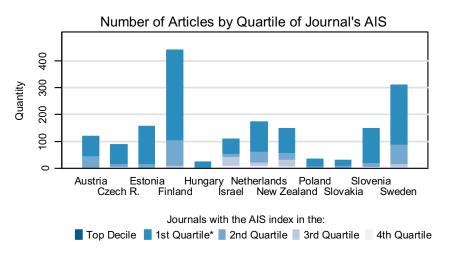


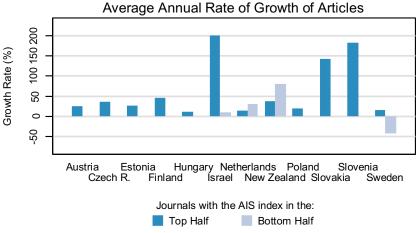


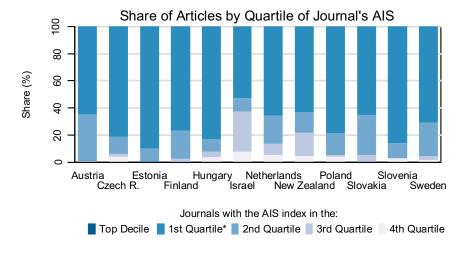
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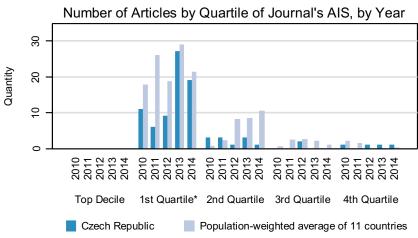
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AGRICULTURAL ENGINEERING





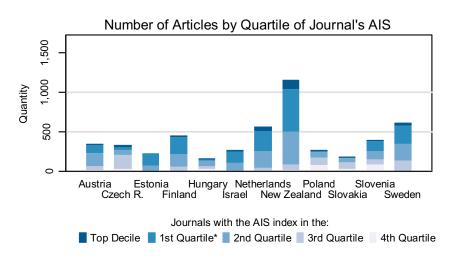


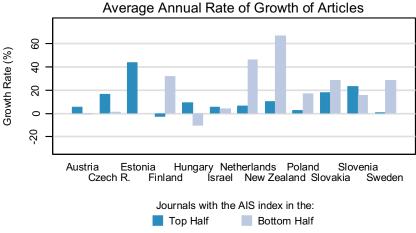


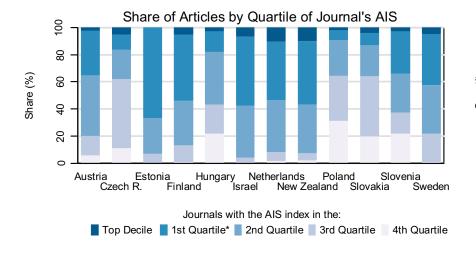
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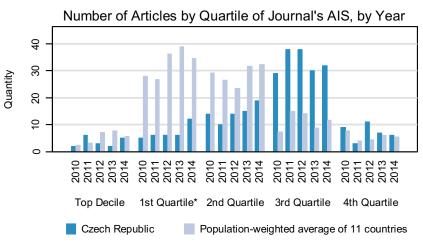
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AGRICULTURE, DAIRY & ANIMAL SCIENCE







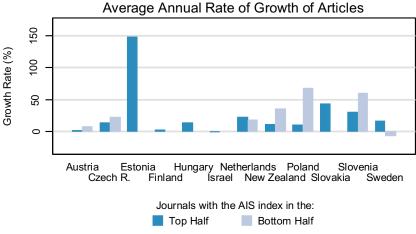


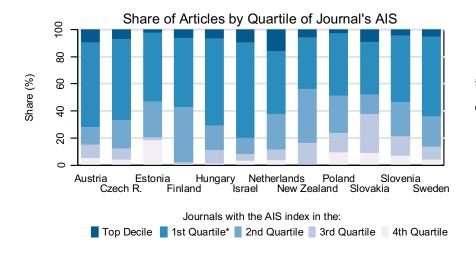
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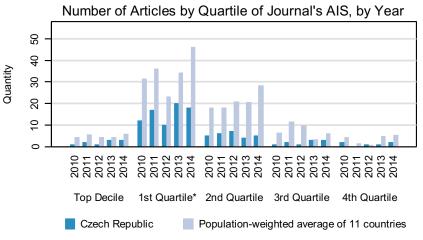
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AGRICULTURE, MULTIDISCIPLINARY





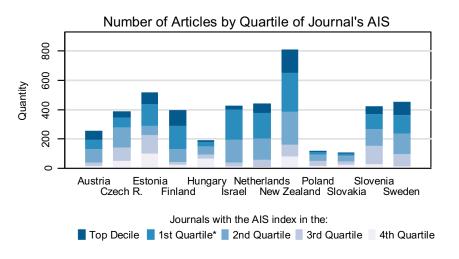


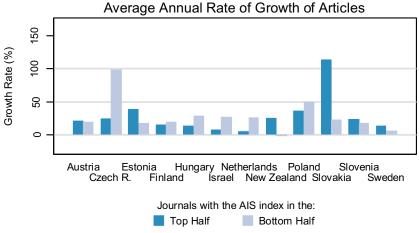


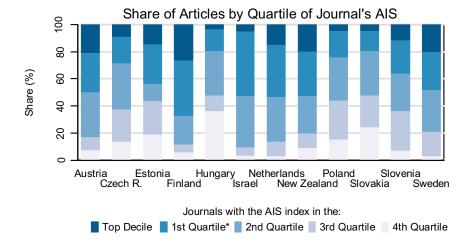
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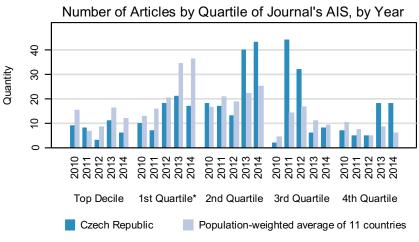
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AGRONOMY





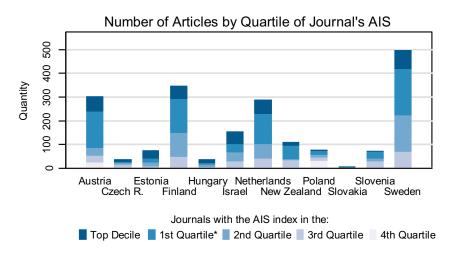


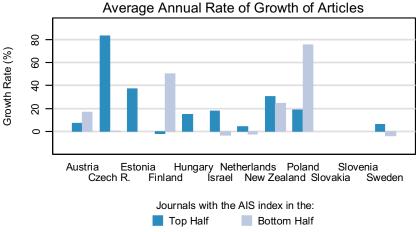


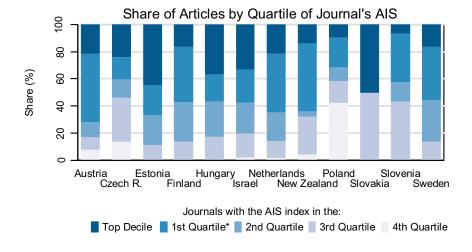
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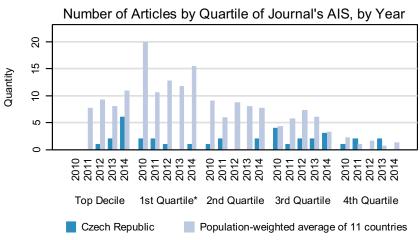
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ALLERGY





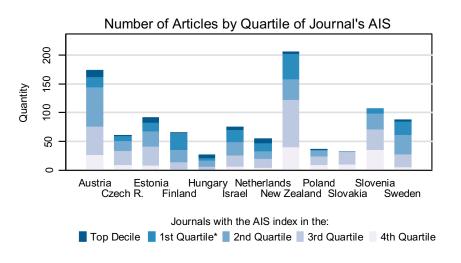


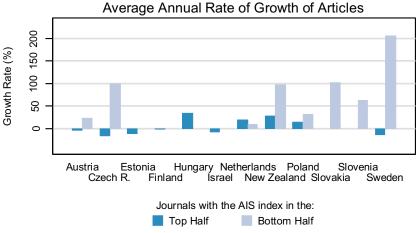


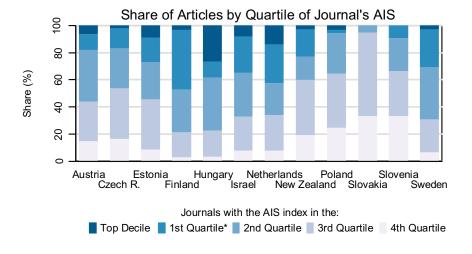
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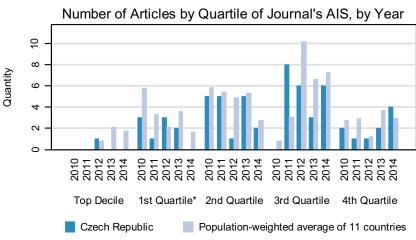
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ANATOMY & MORPHOLOGY





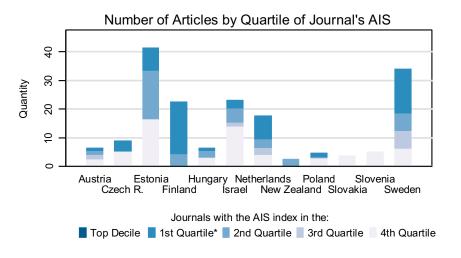


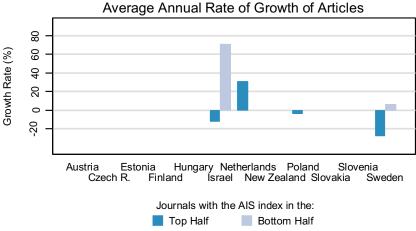


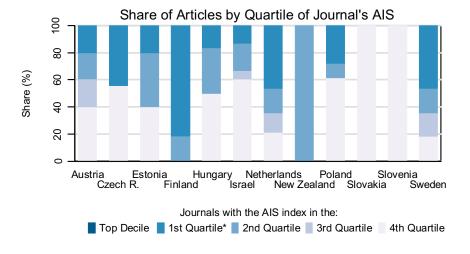
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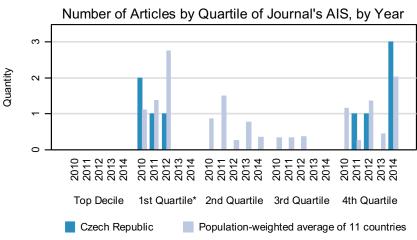
* 1st Quartile excludes the Top Decile

ANDROLOGY





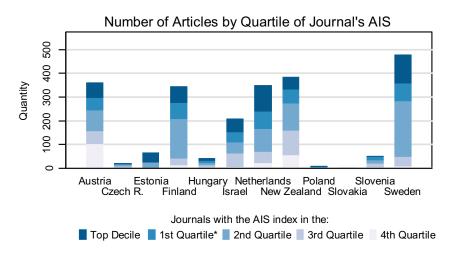


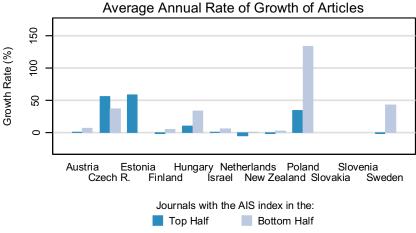


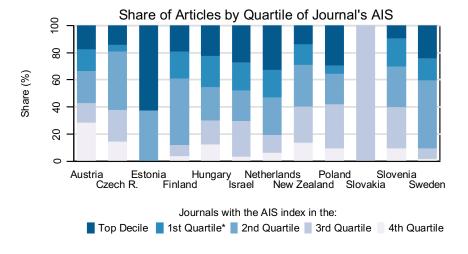
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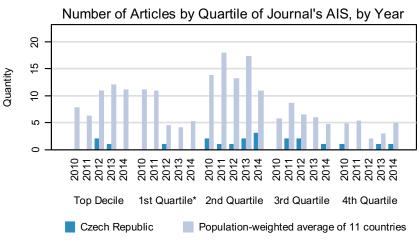
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ANESTHESIOLOGY





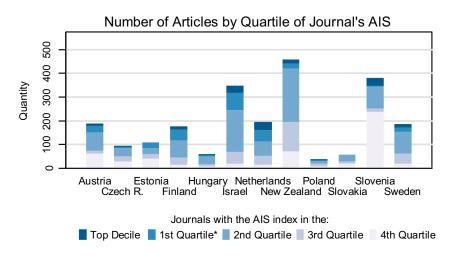


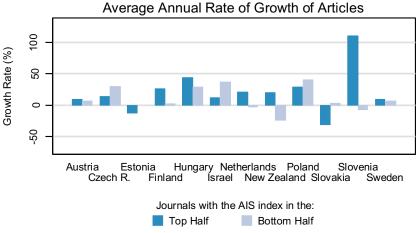


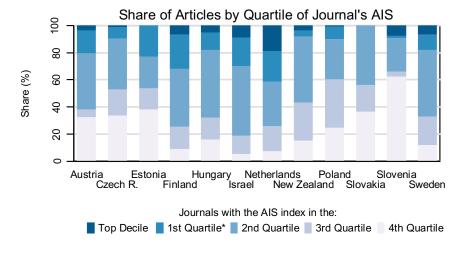
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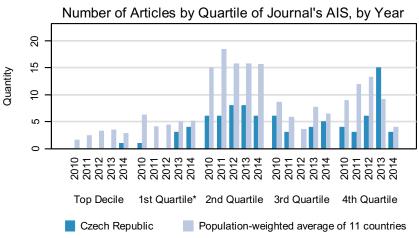
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ANTHROPOLOGY





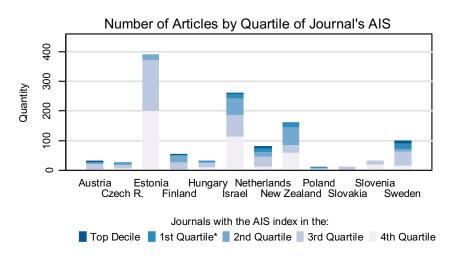


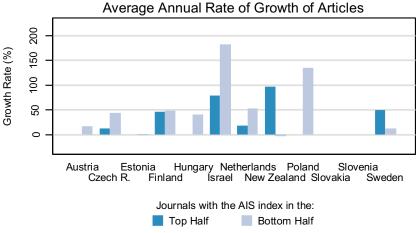


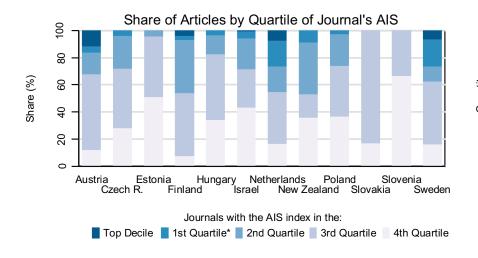
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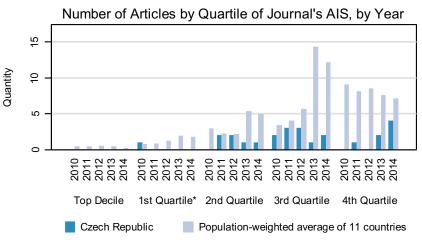
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AREA STUDIES





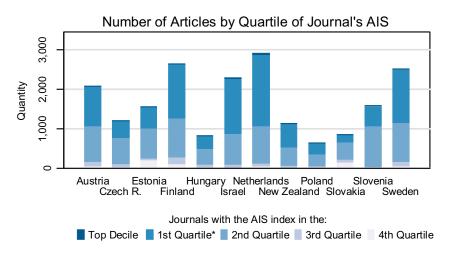


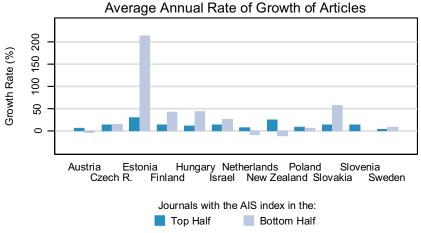


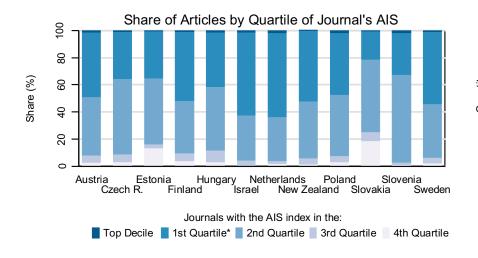
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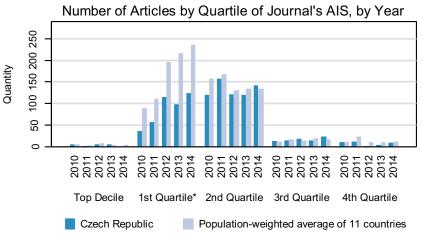
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ASTRONOMY & ASTROPHYSICS





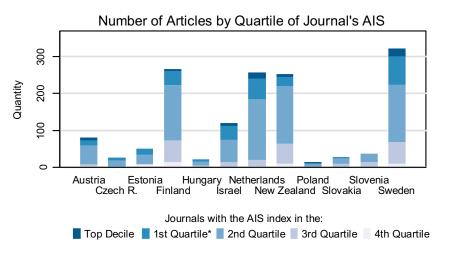


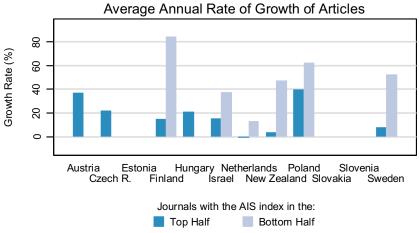


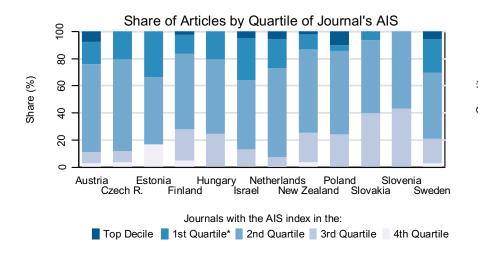
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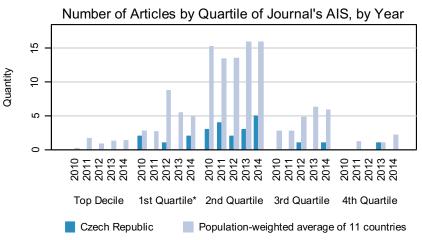
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AUDIOLOGY & SPEECH-LANGUAGE PATHOLOGY





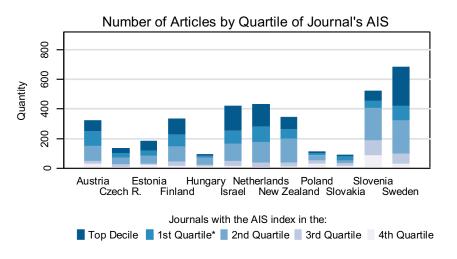


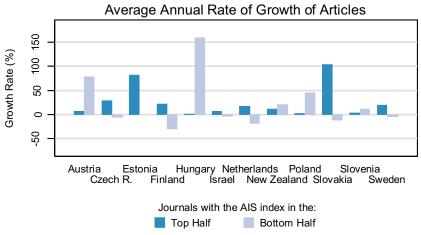


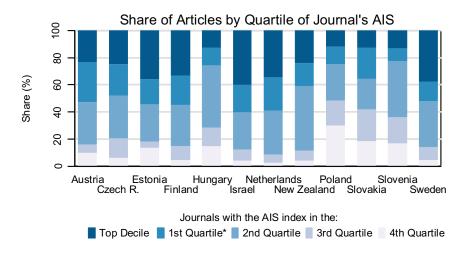
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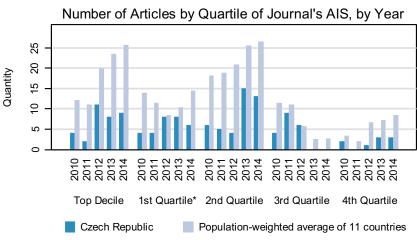
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AUTOMATION & CONTROL SYSTEMS





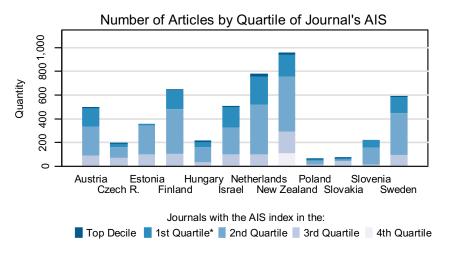


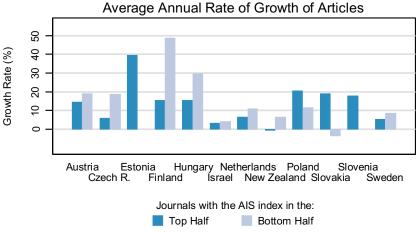


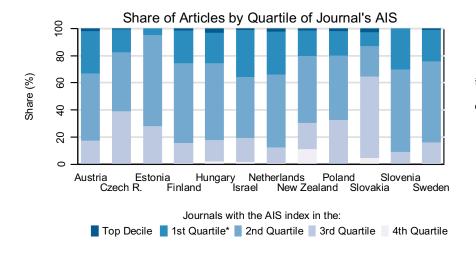
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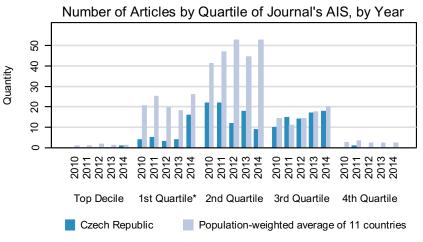
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BEHAVIORAL SCIENCES





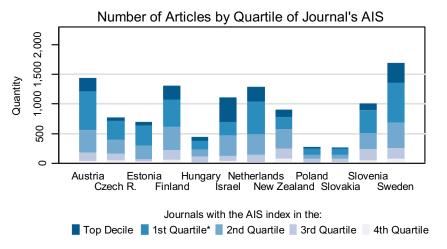


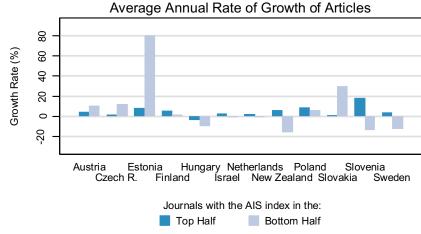


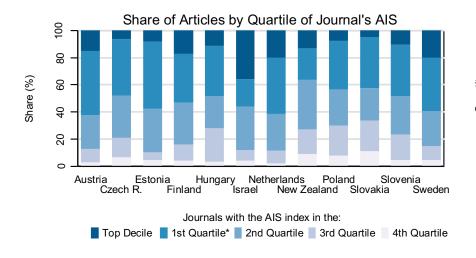
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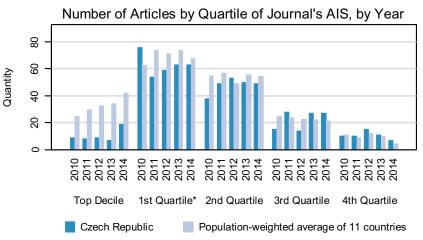
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BIOCHEMICAL RESEARCH METHODS





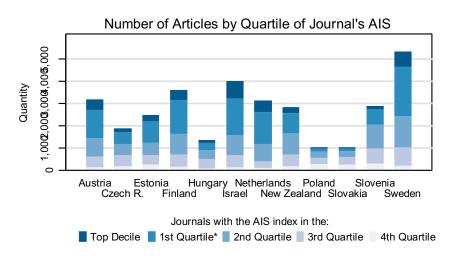


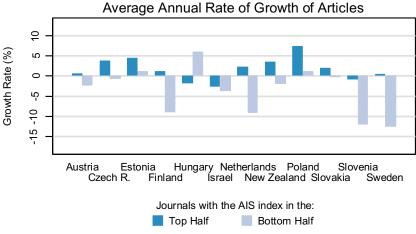


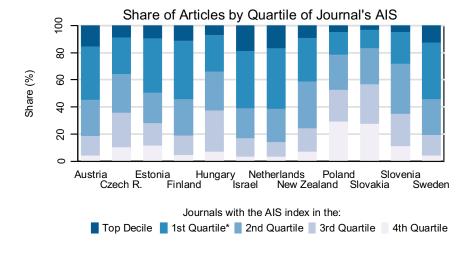
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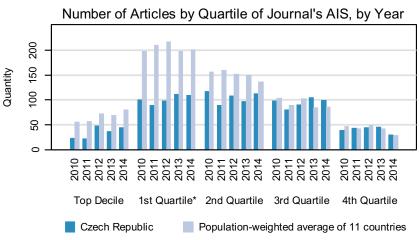
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BIOCHEMISTRY & MOLECULAR BIOLOGY





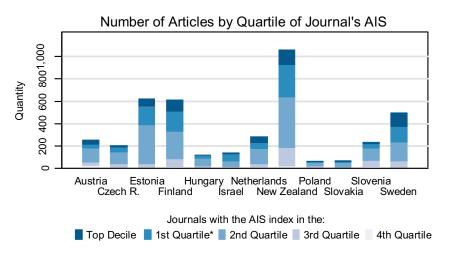


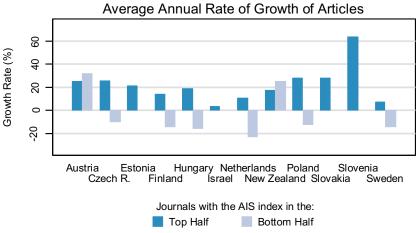


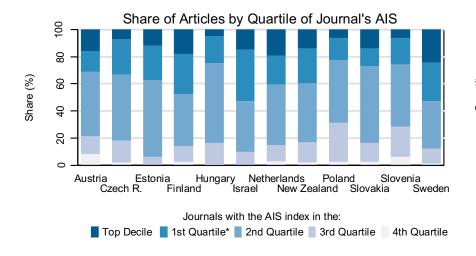
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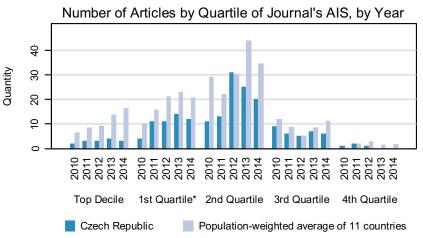
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BIODIVERSITY CONSERVATION





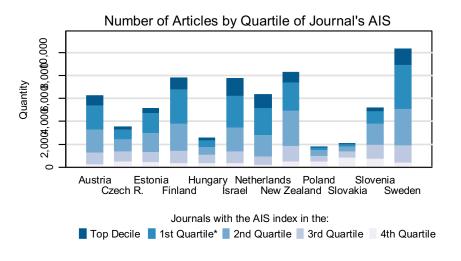


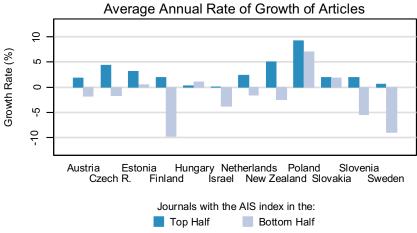


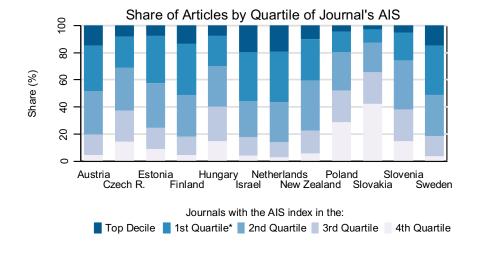
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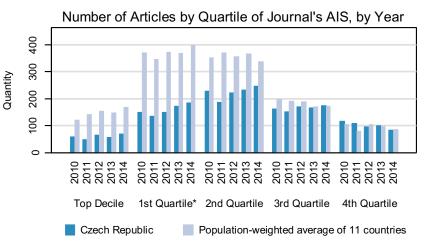
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BIOLOGY





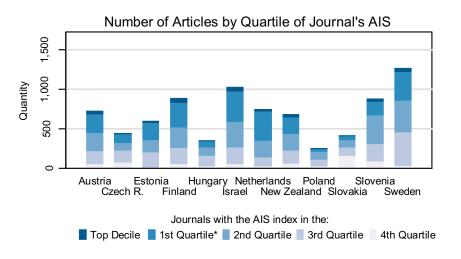


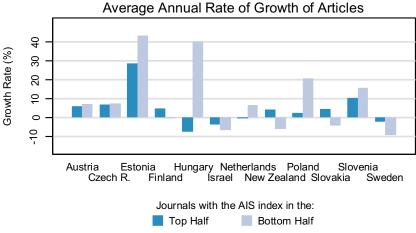


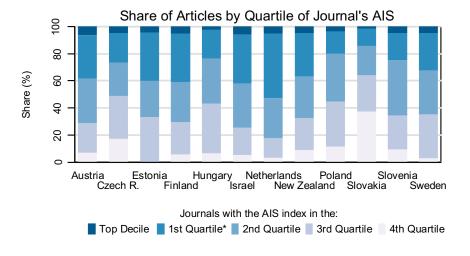
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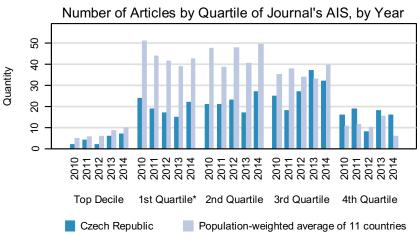
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BIOPHYSICS





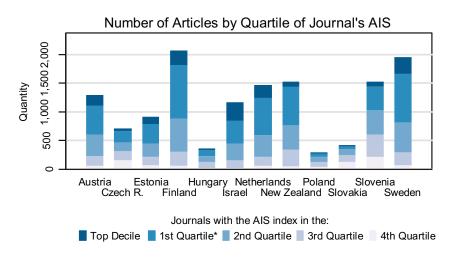


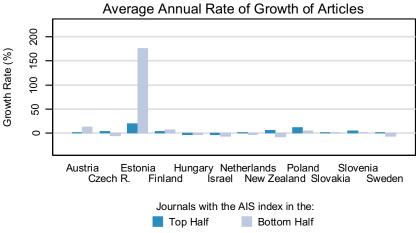


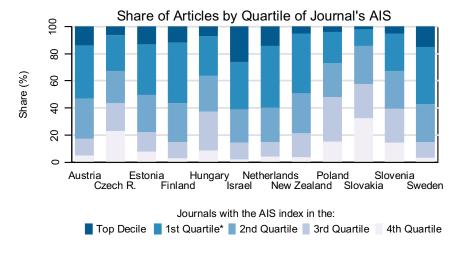
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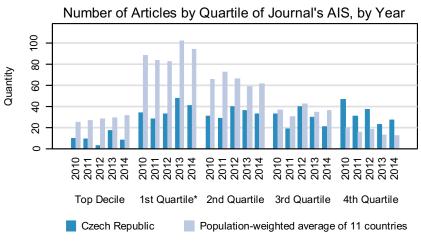
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BIOTECHNOLOGY & APPLIED MICROBIOLOGY





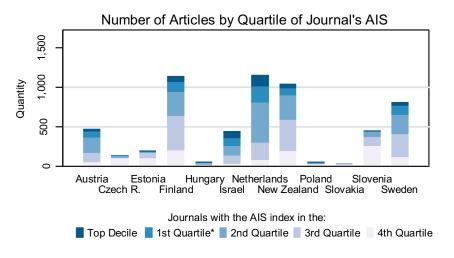


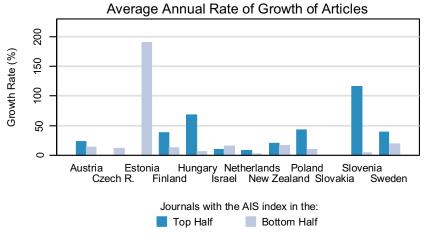


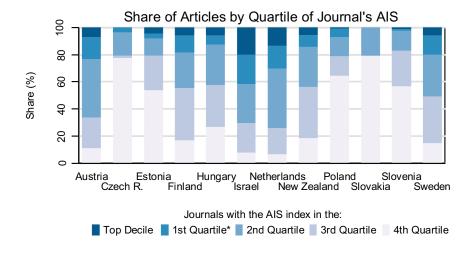
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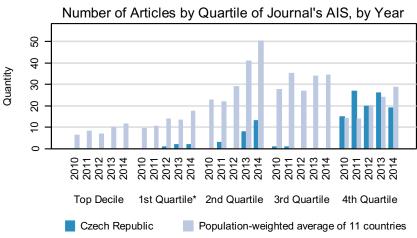
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BUSINESS





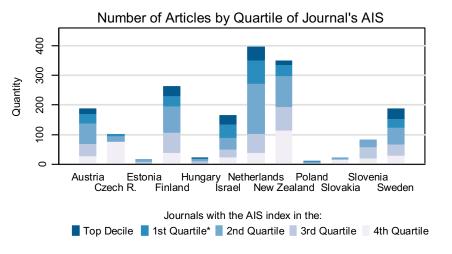


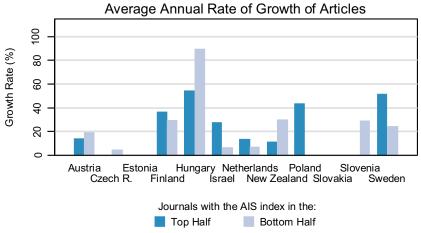


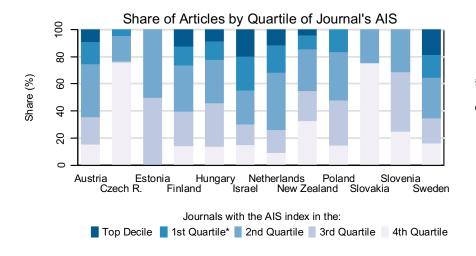
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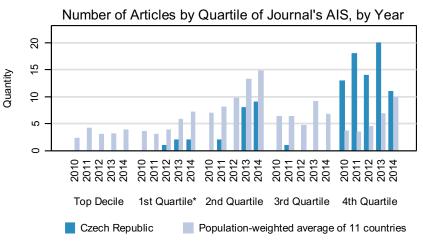
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BUSINESS, FINANCE





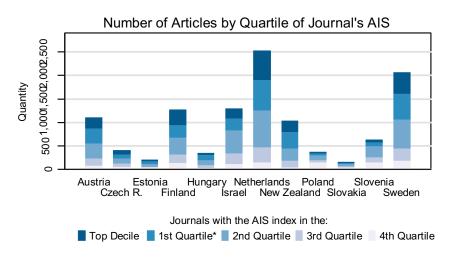


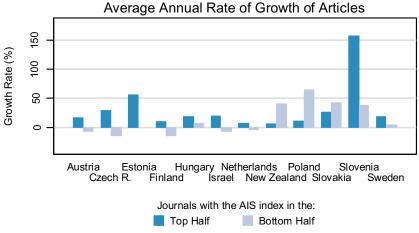


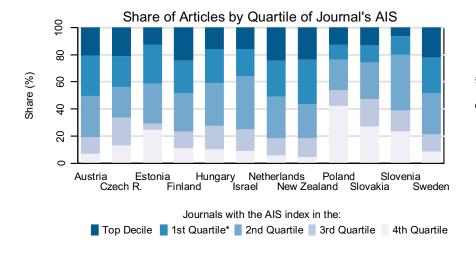
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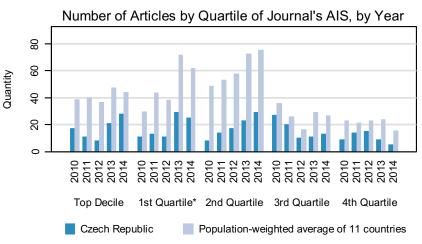
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CARDIAC & CARDIOVASCULAR SYSTEMS





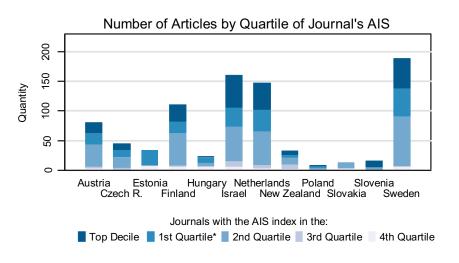


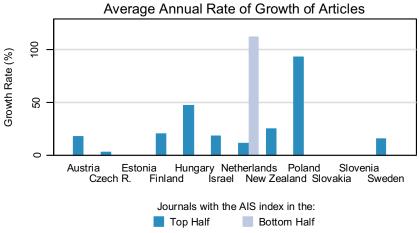


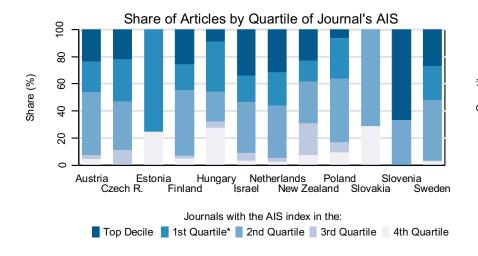
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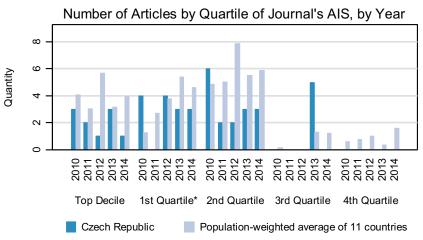
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CELL & TISSUE ENGINEERING





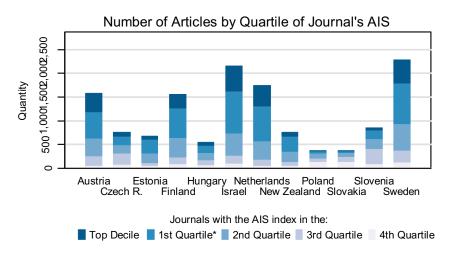


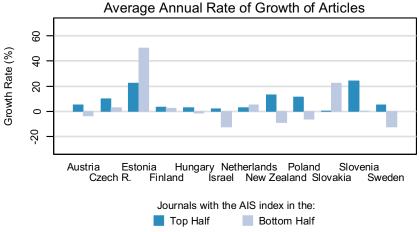


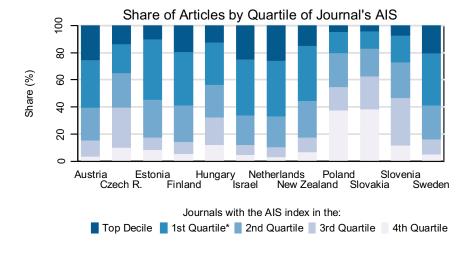
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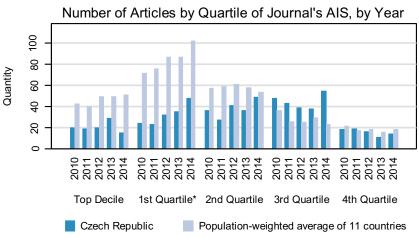
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CELL BIOLOGY





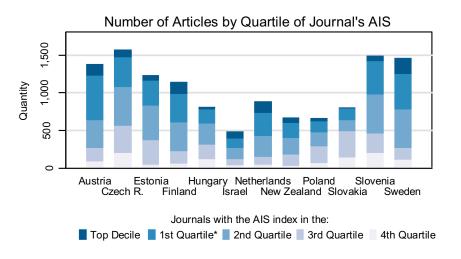


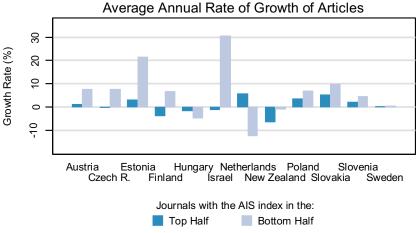


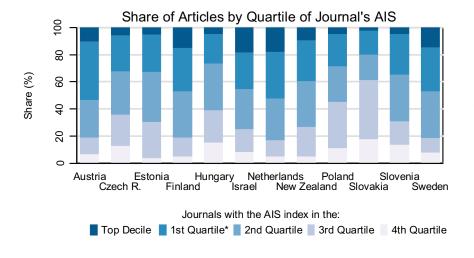
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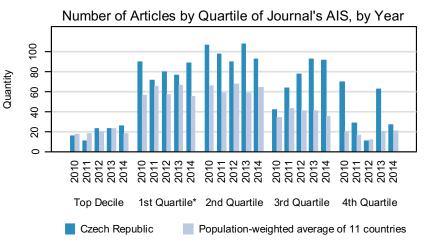
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CHEMISTRY, ANALYTICAL





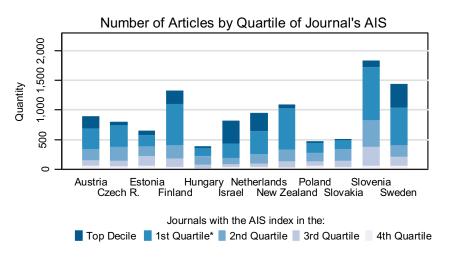


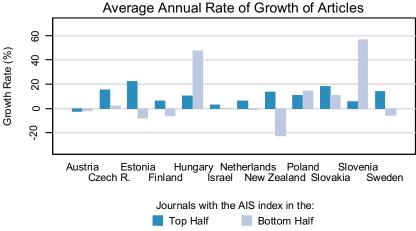


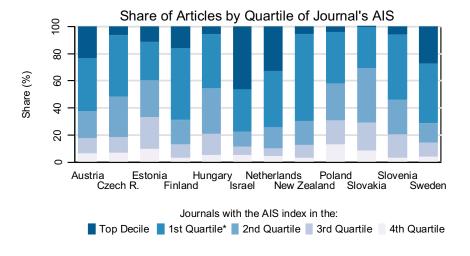
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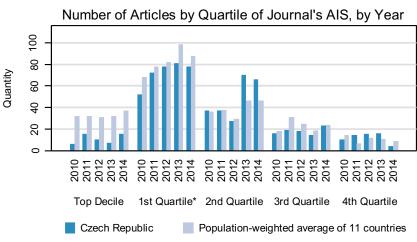
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CHEMISTRY, APPLIED





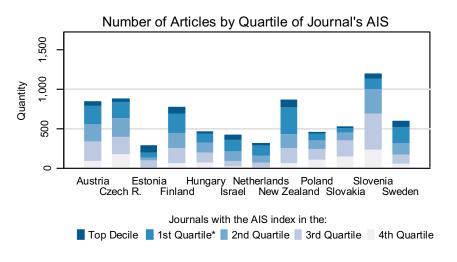


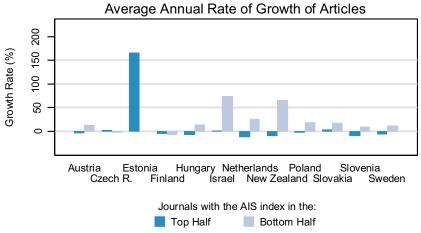


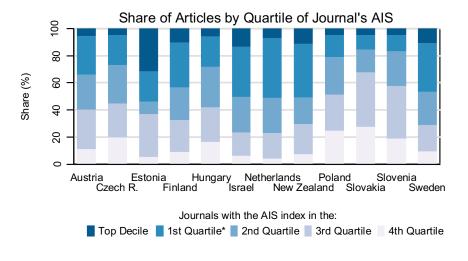
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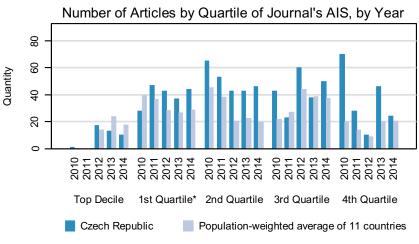
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CHEMISTRY, INORGANIC & NUCLEAR





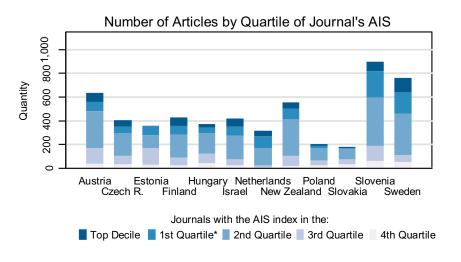


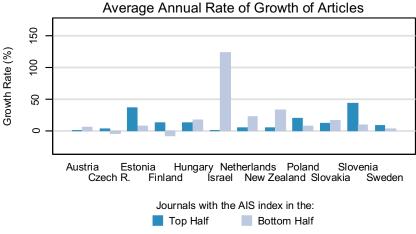


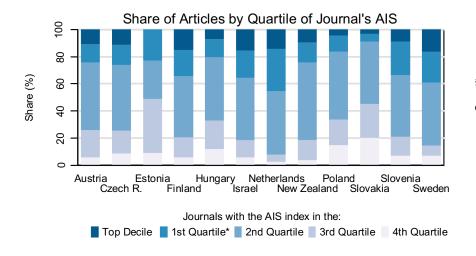
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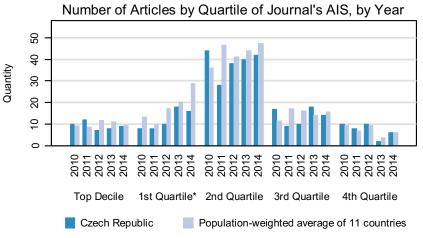
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CHEMISTRY, MEDICINAL





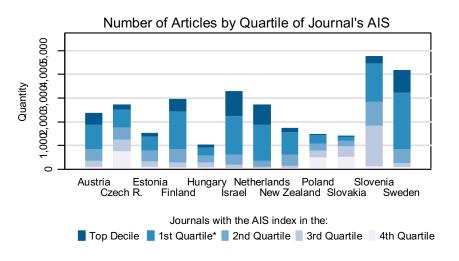


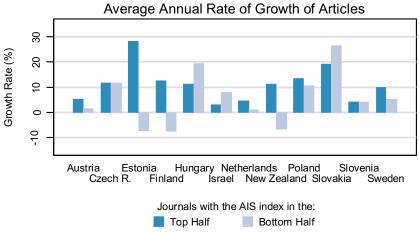


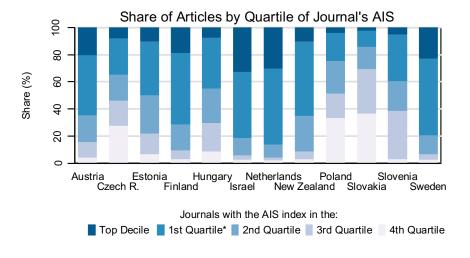
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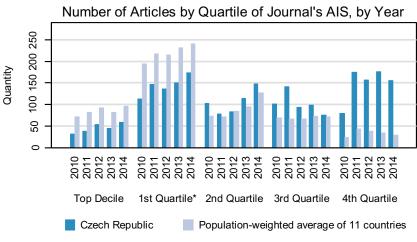
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CHEMISTRY, MULTIDISCIPLINARY





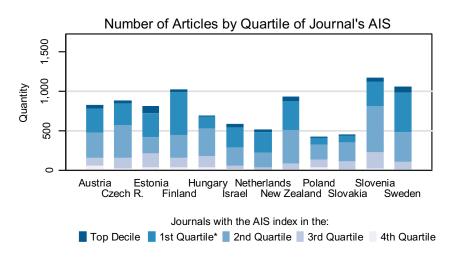


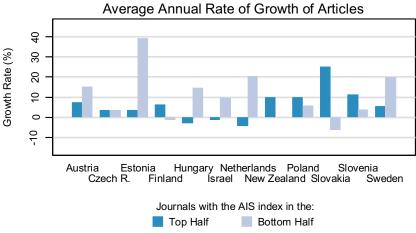


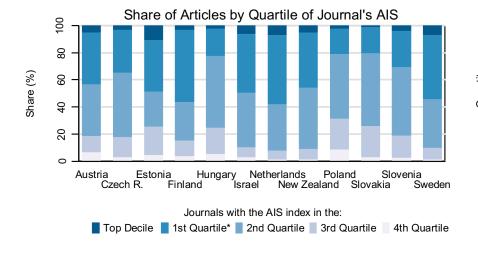
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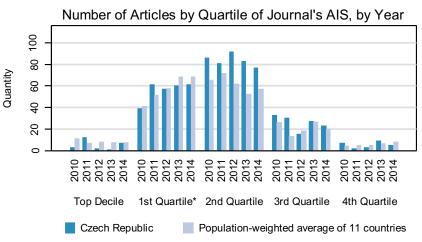
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CHEMISTRY, ORGANIC





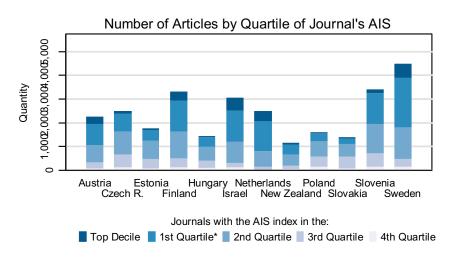


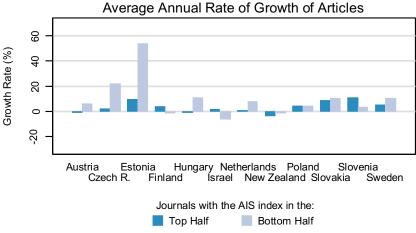


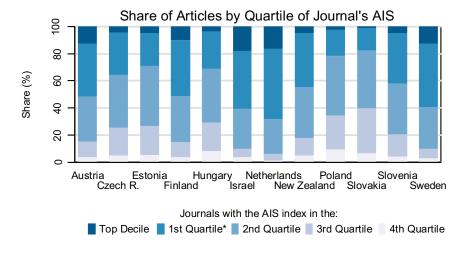
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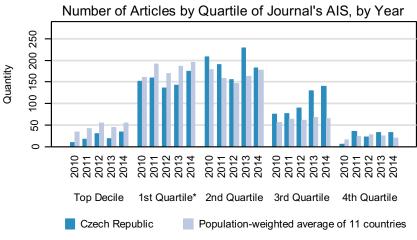
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CHEMISTRY, PHYSICAL





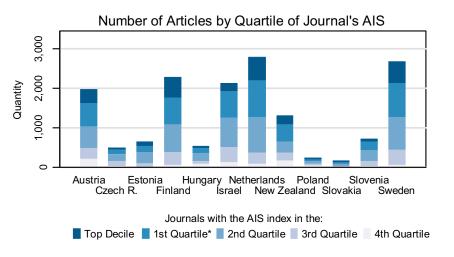


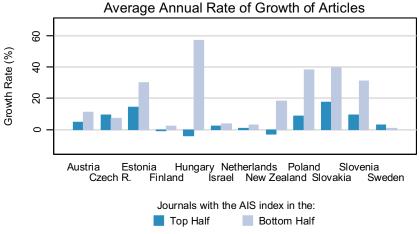


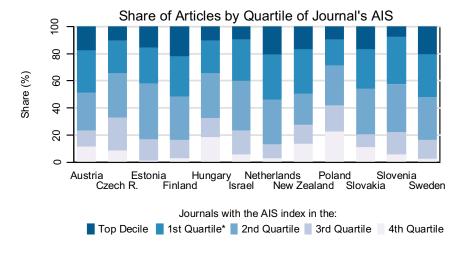
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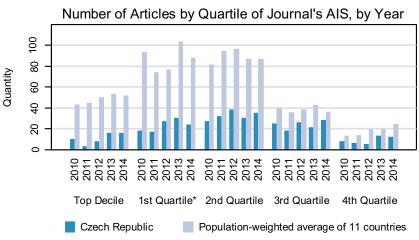
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CLINICAL NEUROLOGY





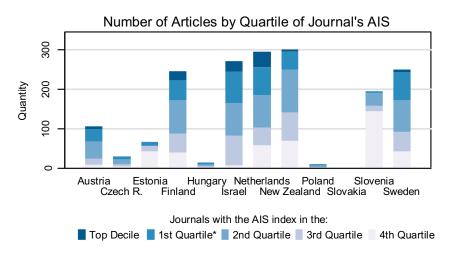


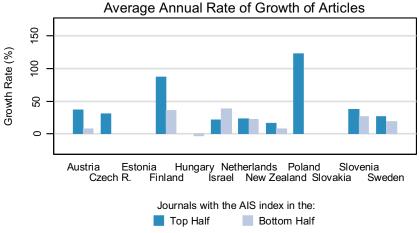


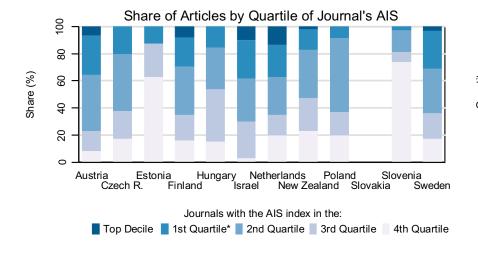
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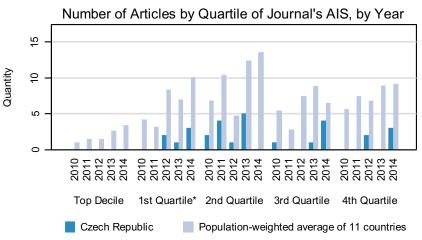
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COMMUNICATION





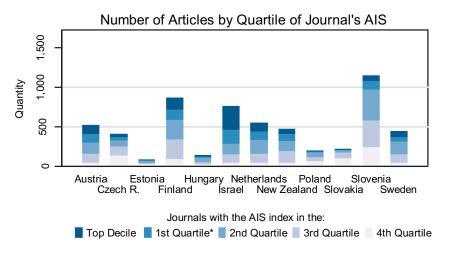


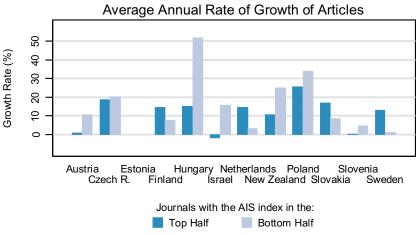


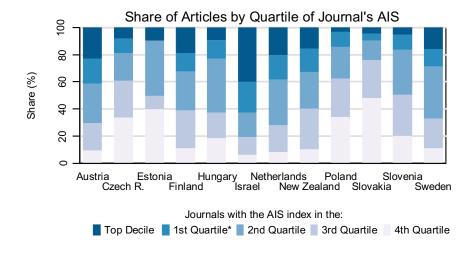
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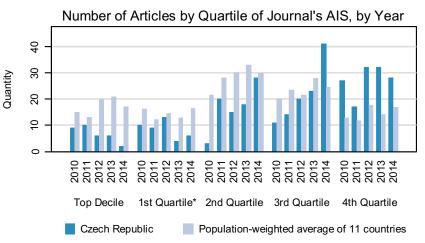
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COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE





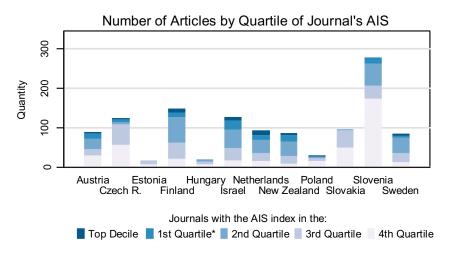


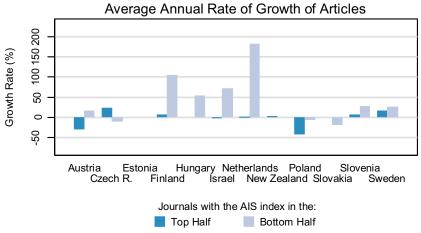


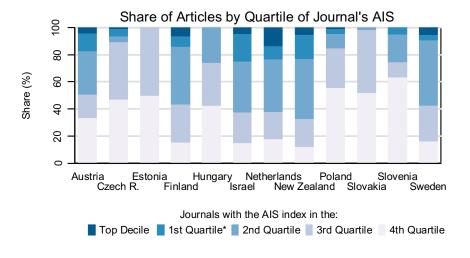
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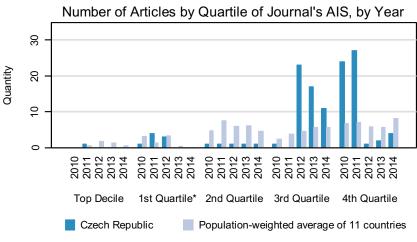
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COMPUTER SCIENCE, CYBERNETICS





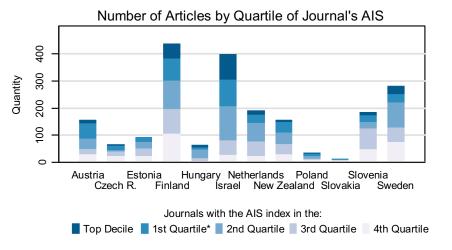


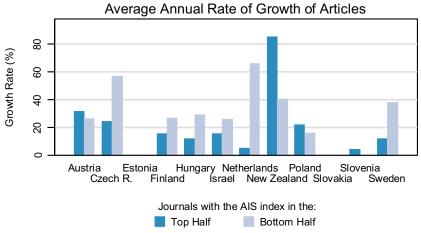


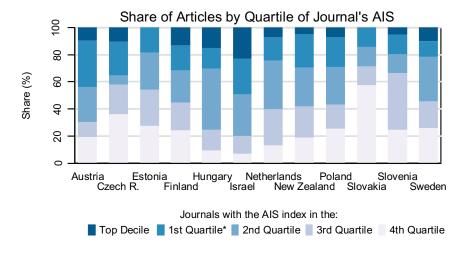
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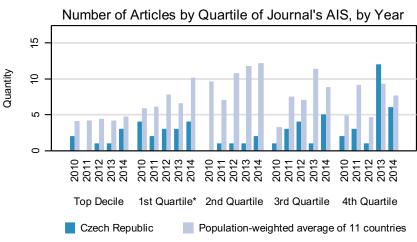
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COMPUTER SCIENCE, HARDWARE & ARCHITECTURE





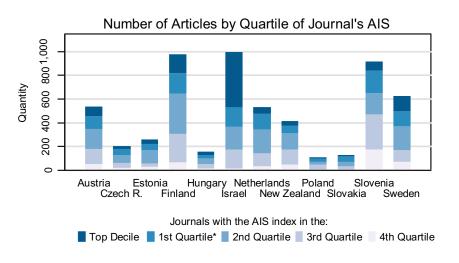


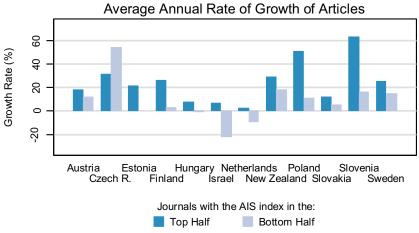


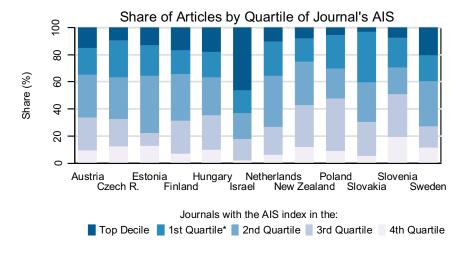
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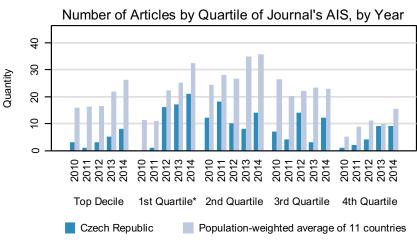
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COMPUTER SCIENCE, INFORMATION SYSTEMS





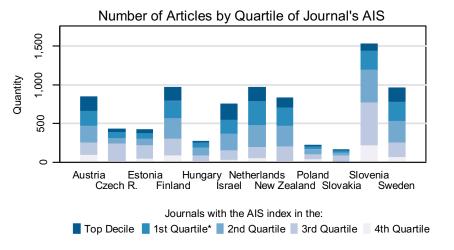


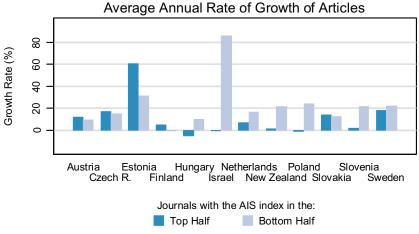


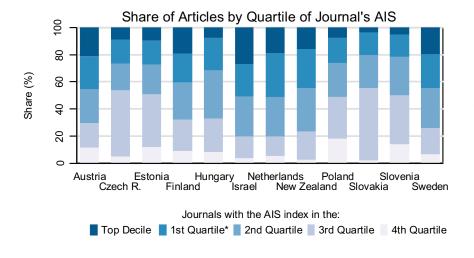
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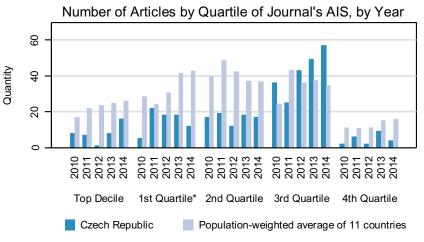
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COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS





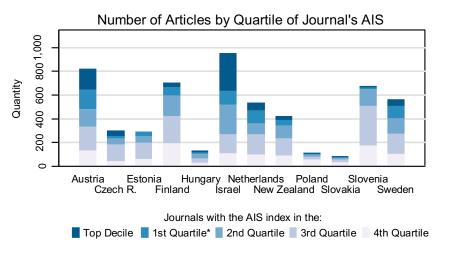


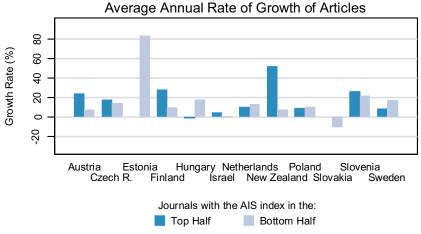


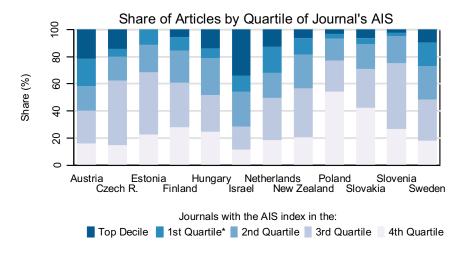
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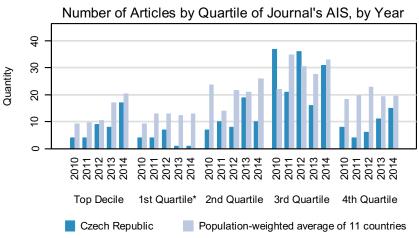
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COMPUTER SCIENCE, SOFTWARE ENGINEERING





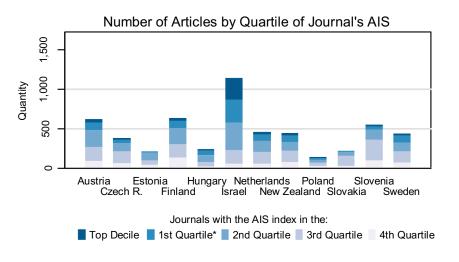


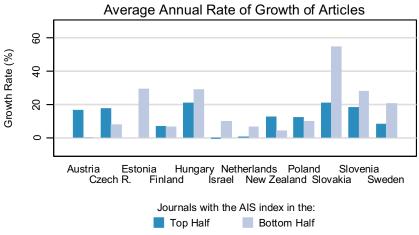


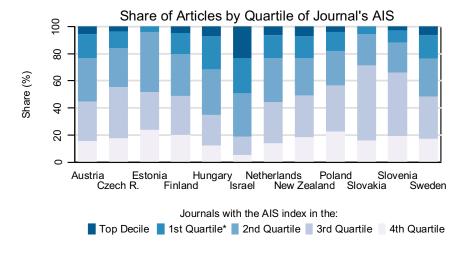
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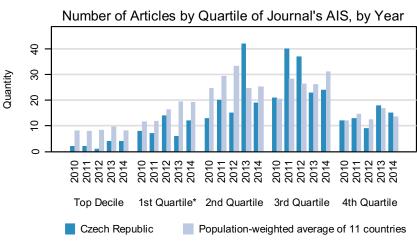
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COMPUTER SCIENCE, THEORY & METHODS





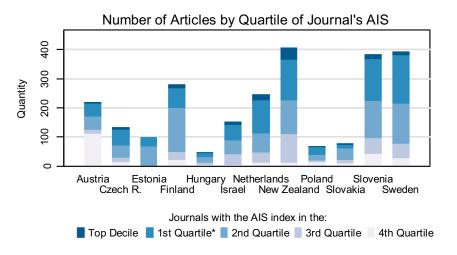


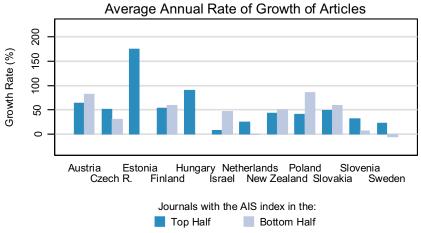


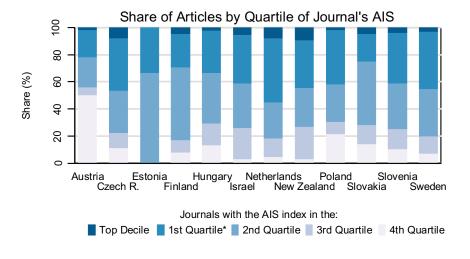
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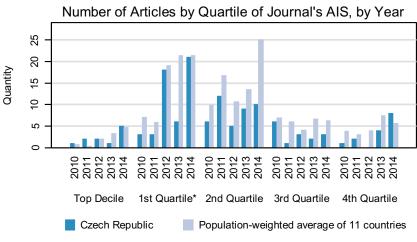
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CONSTRUCTION & BUILDING TECHNOLOGY





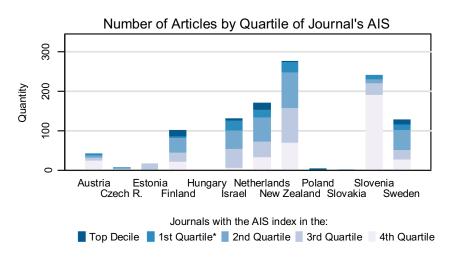


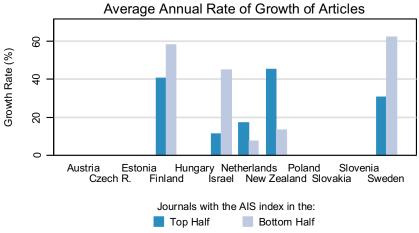


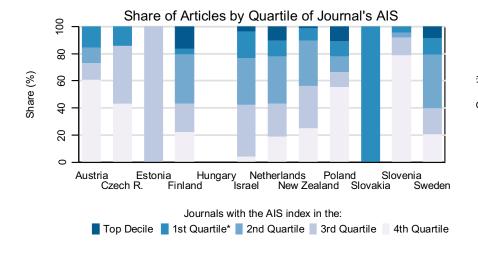
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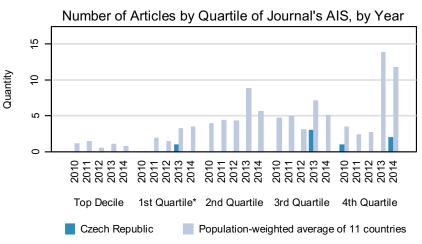
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CRIMINOLOGY & PENOLOGY





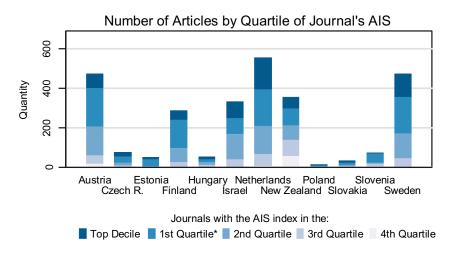


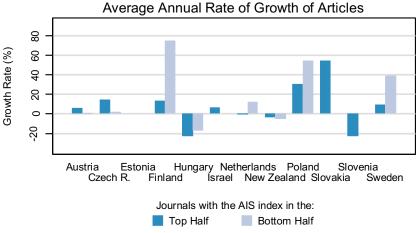


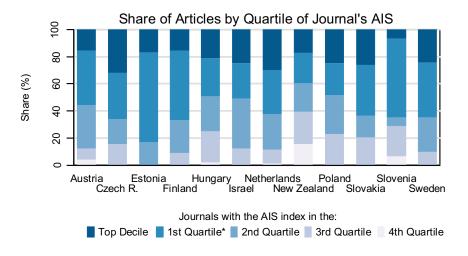
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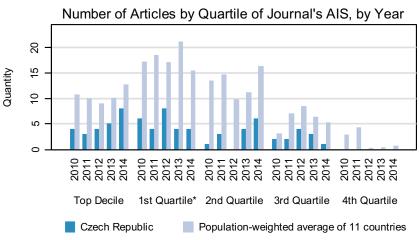
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CRITICAL CARE MEDICINE





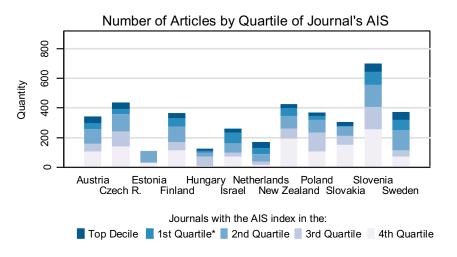


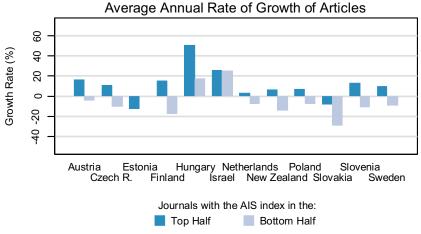


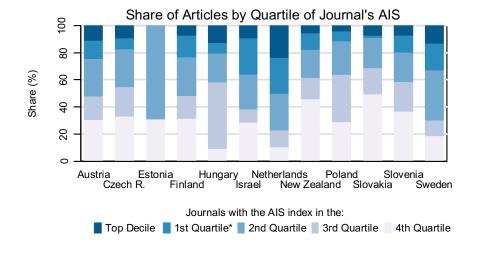
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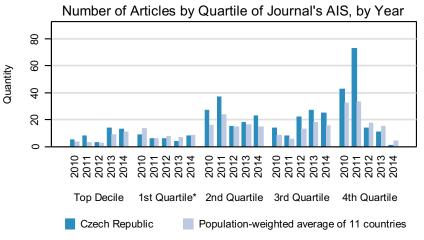
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CRYSTALLOGRAPHY





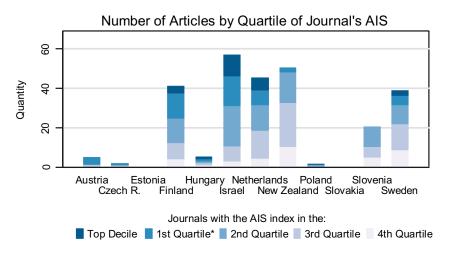


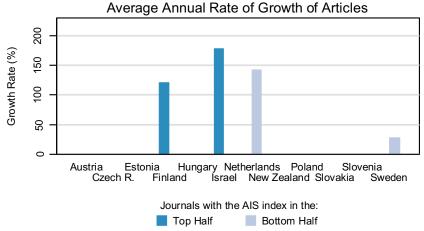


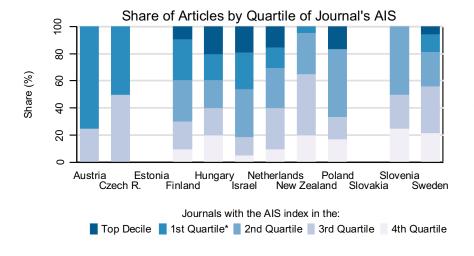
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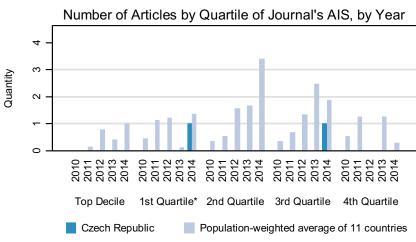
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CULTURAL STUDIES





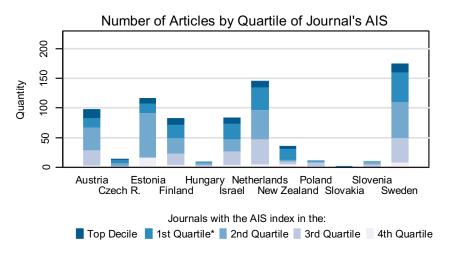


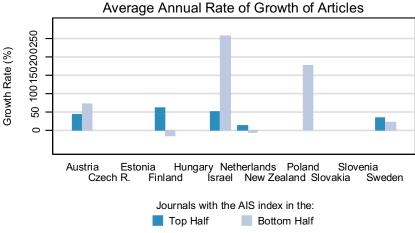


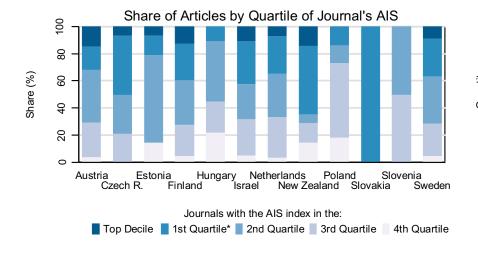
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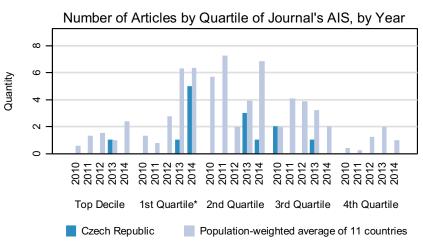
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DEMOGRAPHY





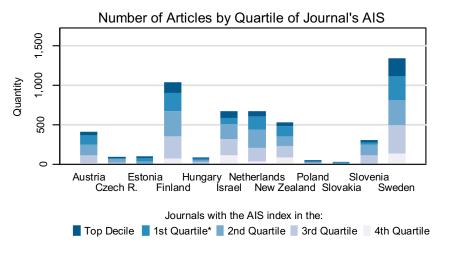


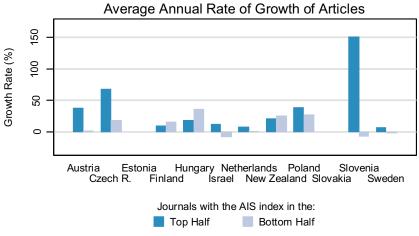


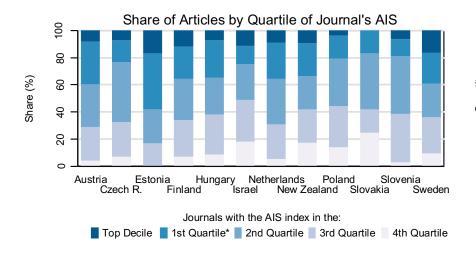
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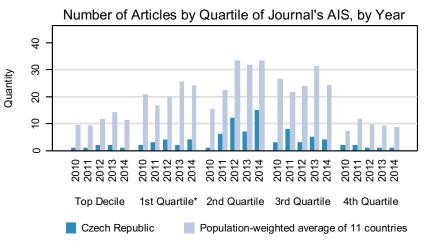
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DENTISTRY, ORAL SURGERY & MEDICINE





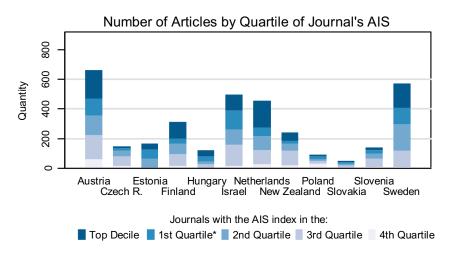


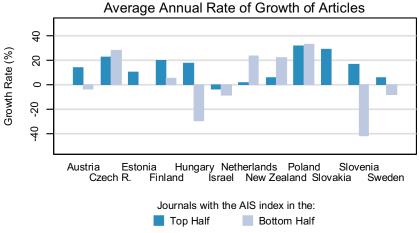


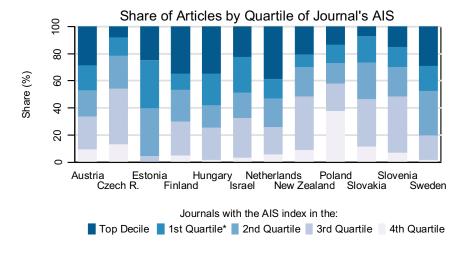
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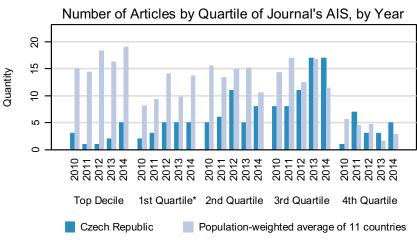
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DERMATOLOGY





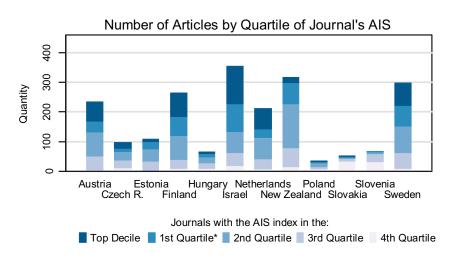


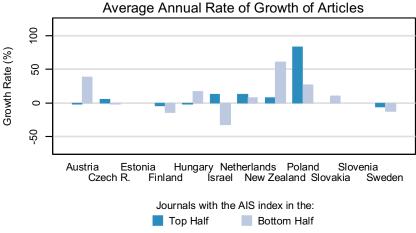


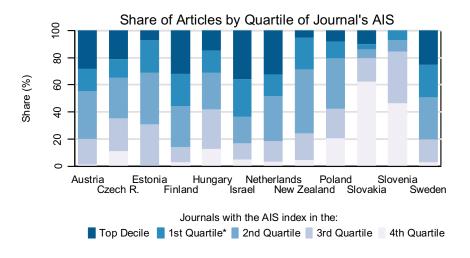
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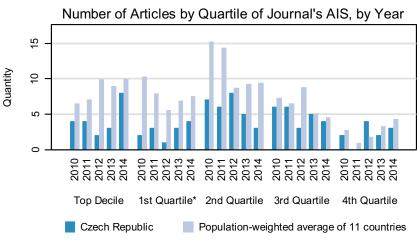
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DEVELOPMENTAL BIOLOGY





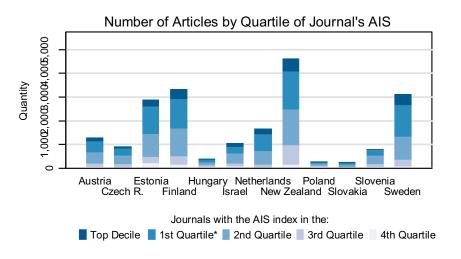


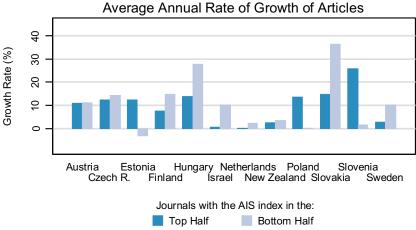


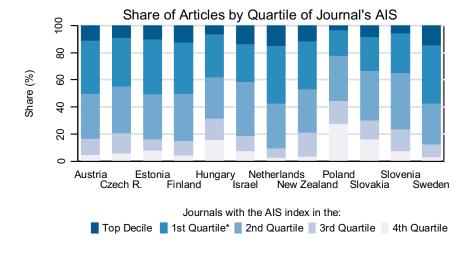
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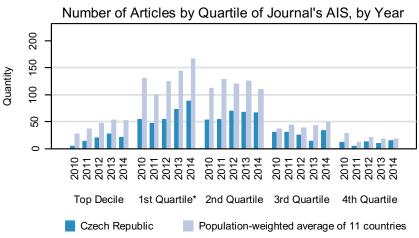
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ECOLOGY





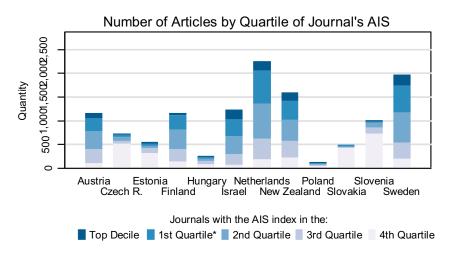


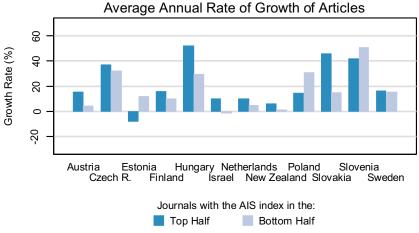


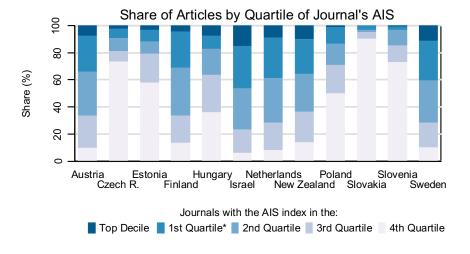
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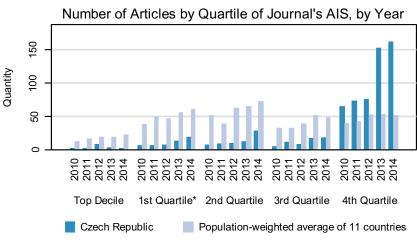
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ECONOMICS





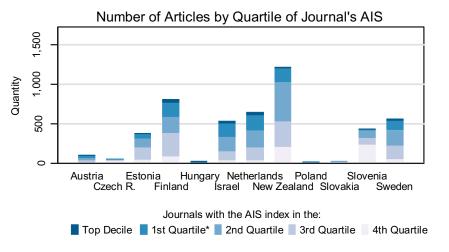


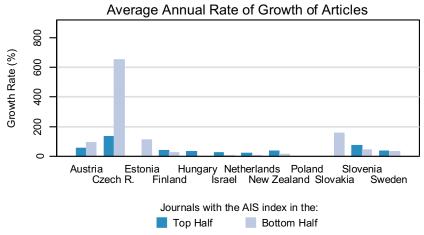


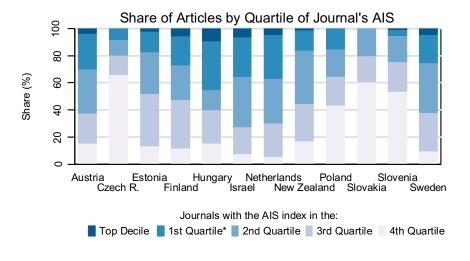
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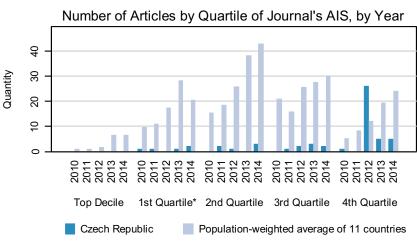
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EDUCATION & EDUCATIONAL RESEARCH





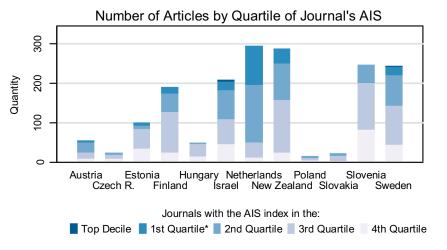


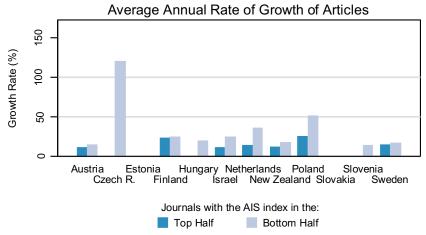


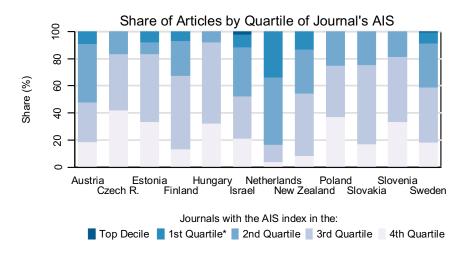
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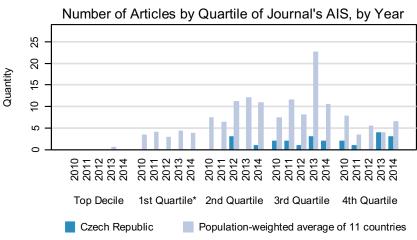
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EDUCATION, SCIENTIFIC DISCIPLINES





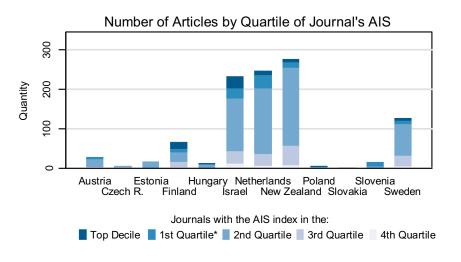


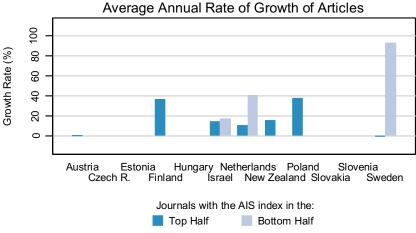


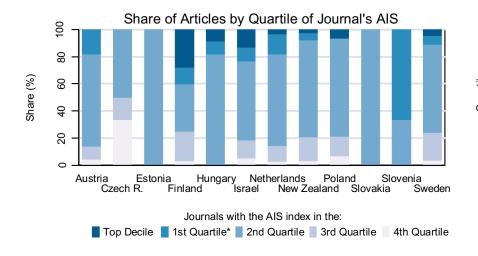
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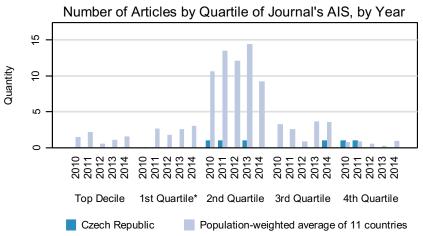
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EDUCATION, SPECIAL





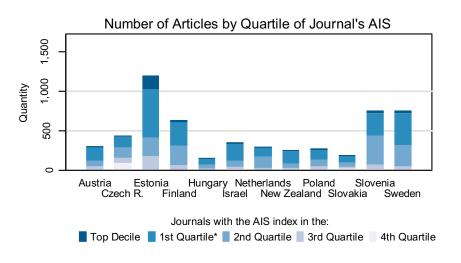


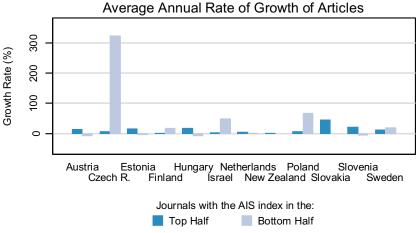


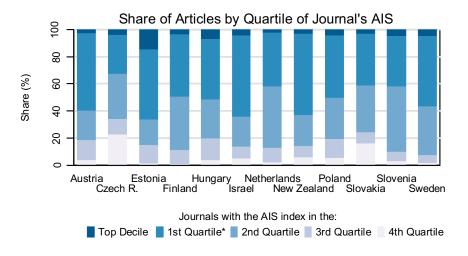
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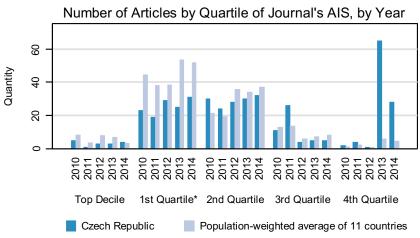
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ELECTROCHEMISTRY





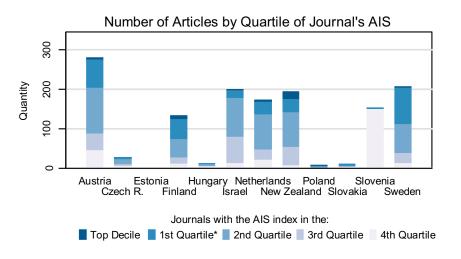


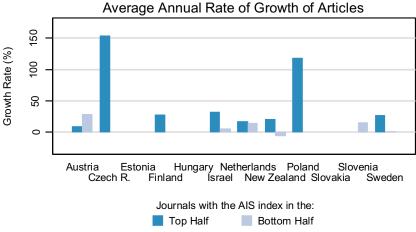


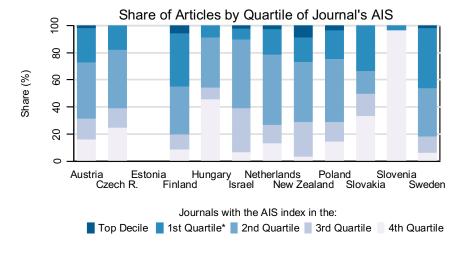
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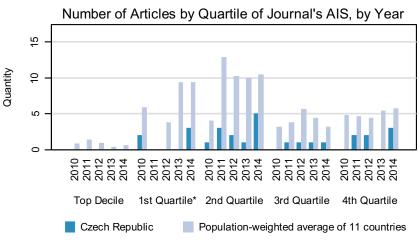
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EMERGENCY MEDICINE





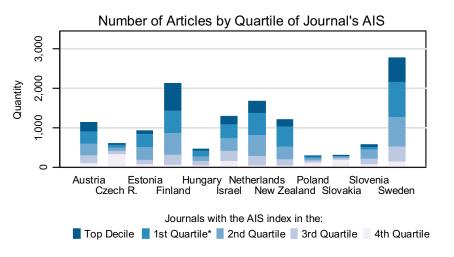


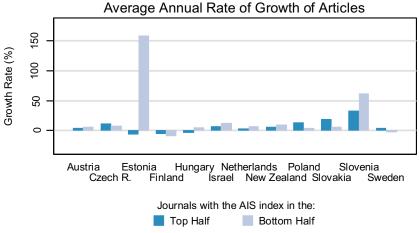


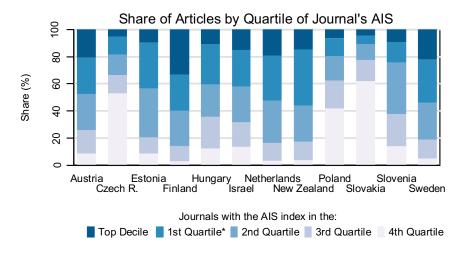
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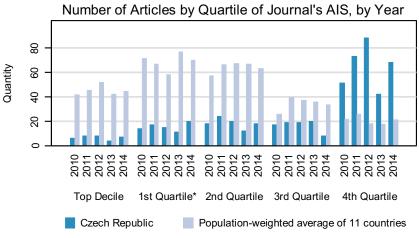
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ENDOCRINOLOGY & METABOLISM





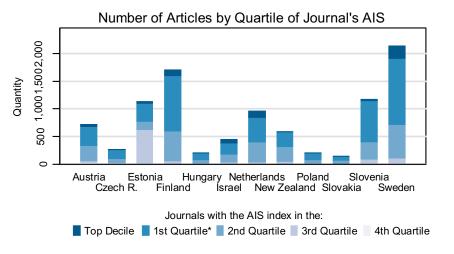


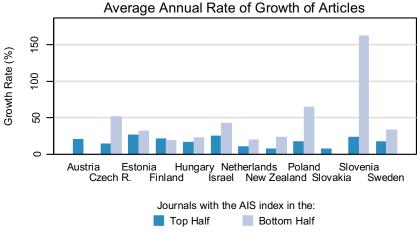


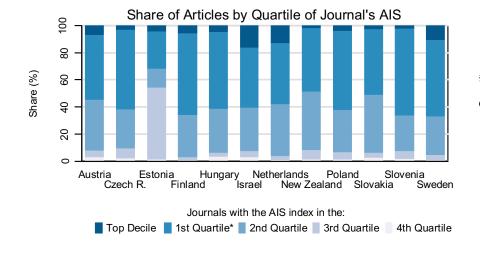
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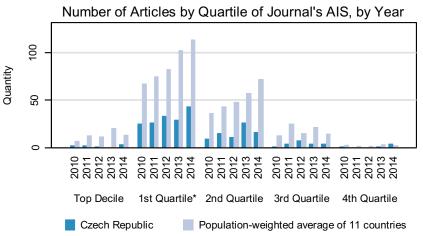
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ENERGY & FUELS





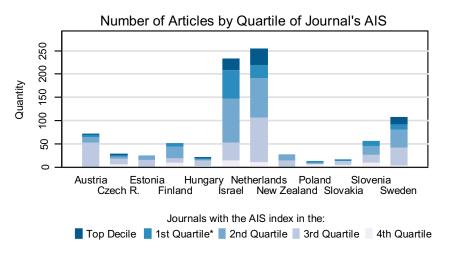


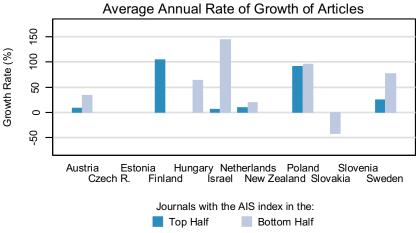


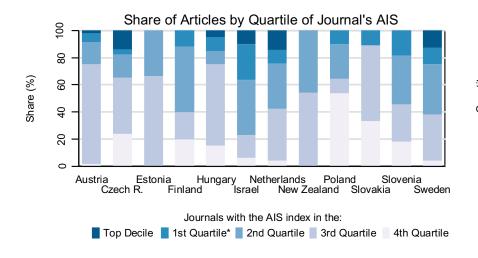
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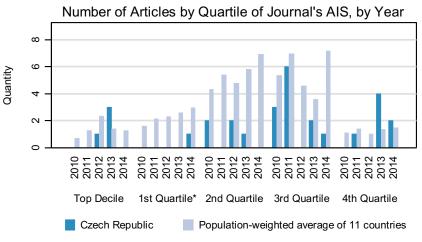
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ENGINEERING, AEROSPACE





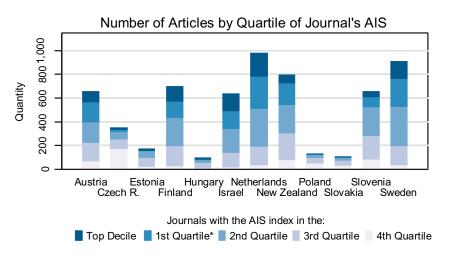


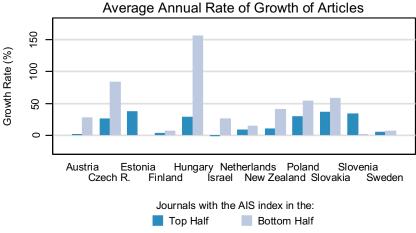


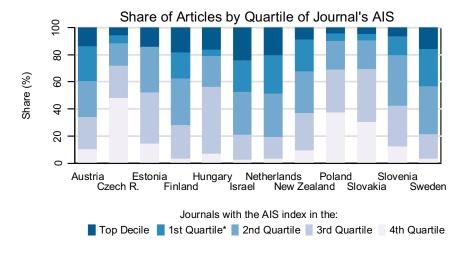
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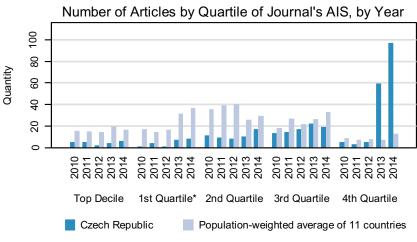
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ENGINEERING, BIOMEDICAL





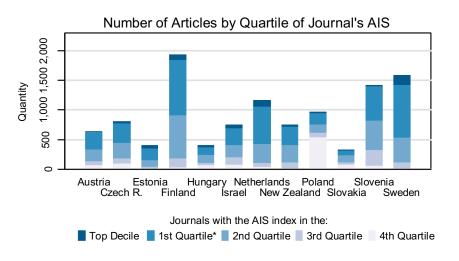


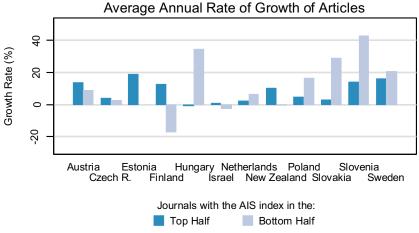


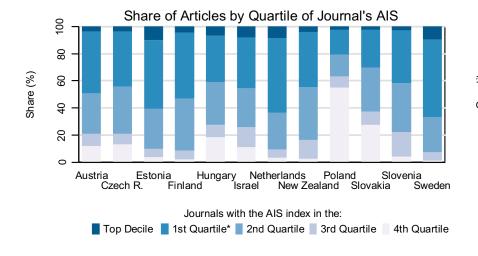
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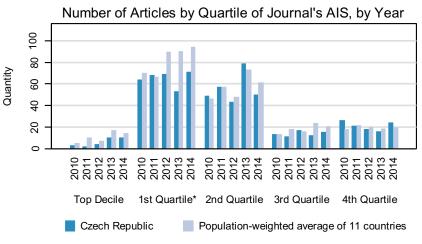
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ENGINEERING, CHEMICAL





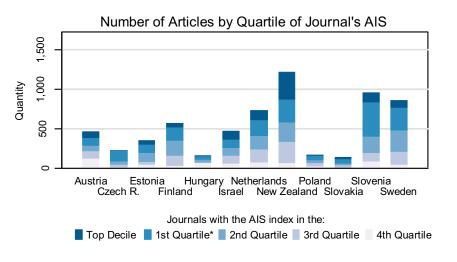


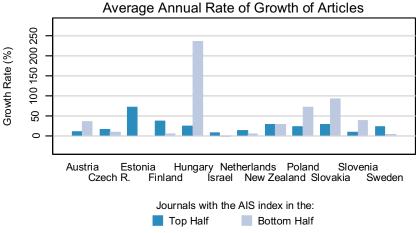


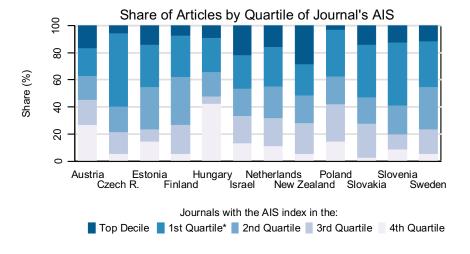
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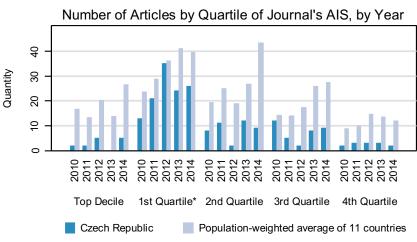
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ENGINEERING, CIVIL





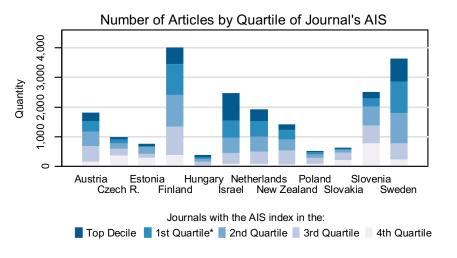


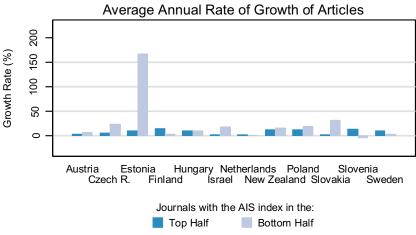


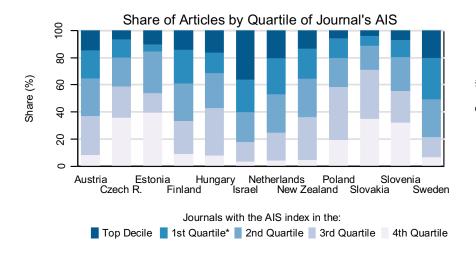
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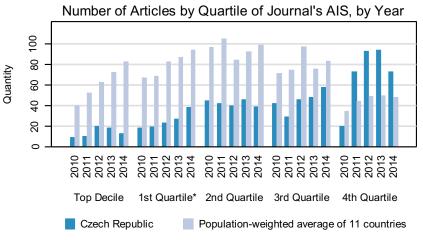
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ENGINEERING, ELECTRICAL & ELECTRONIC





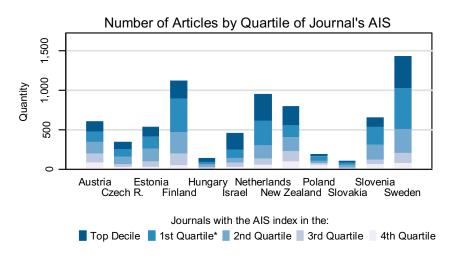


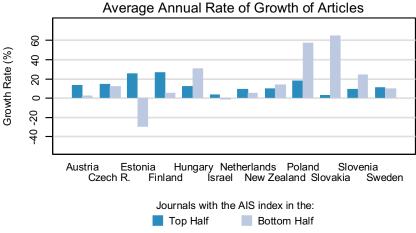


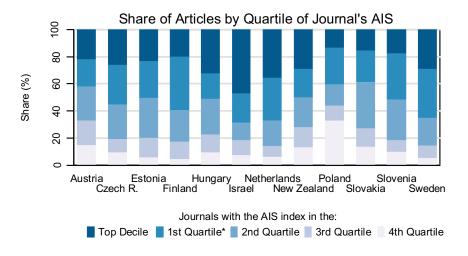
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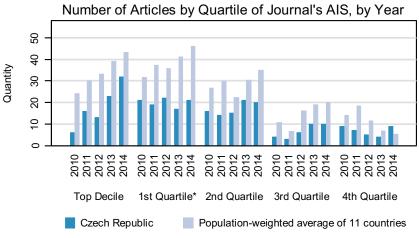
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ENGINEERING, ENVIRONMENTAL





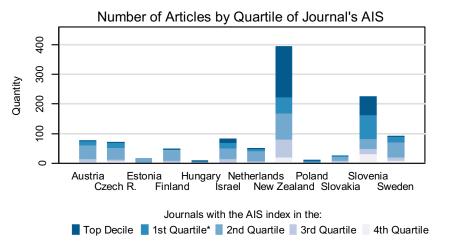


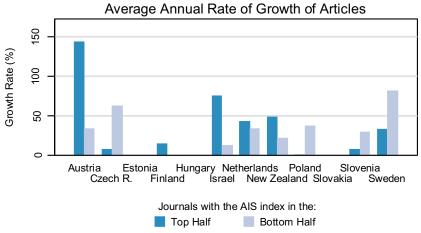


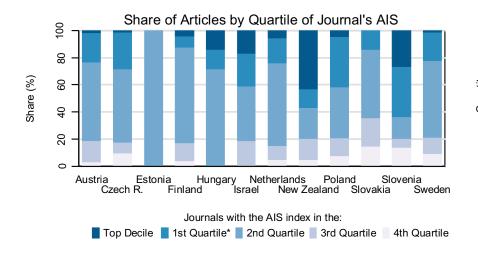
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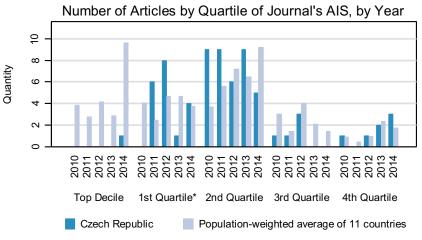
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ENGINEERING, GEOLOGICAL





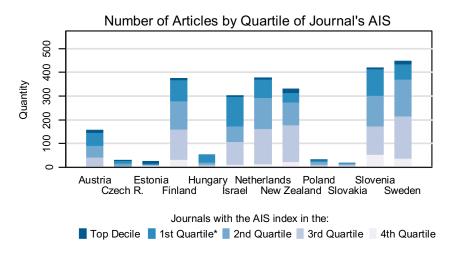


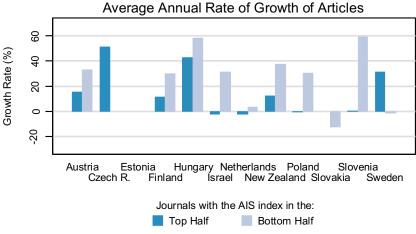


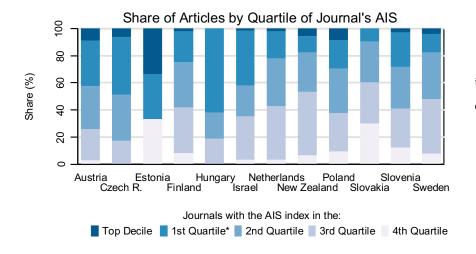
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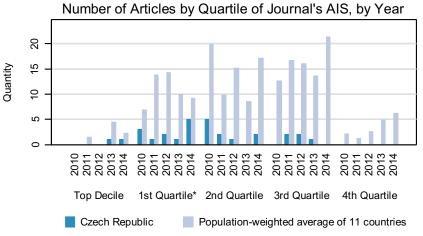
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ENGINEERING, INDUSTRIAL





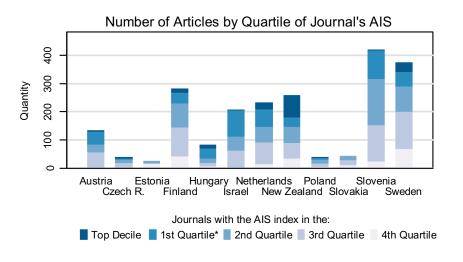


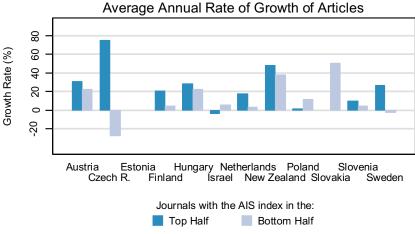


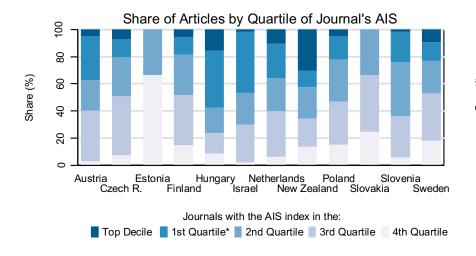
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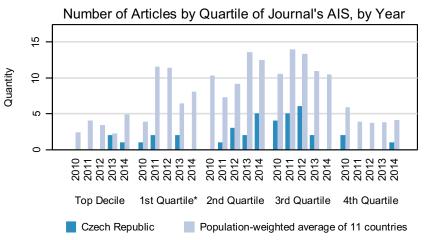
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ENGINEERING, MANUFACTURING





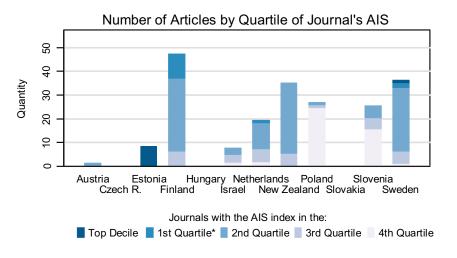


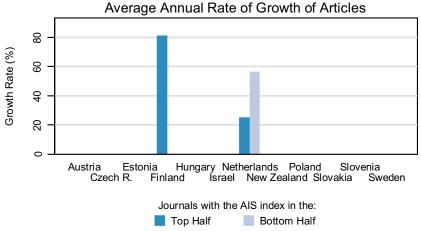


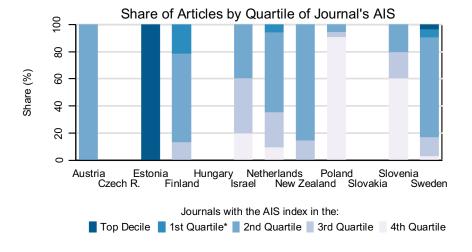
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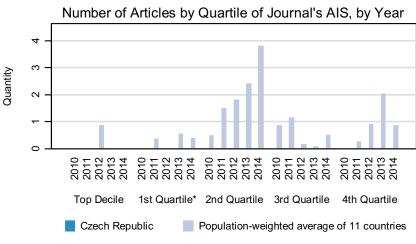
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ENGINEERING, MARINE





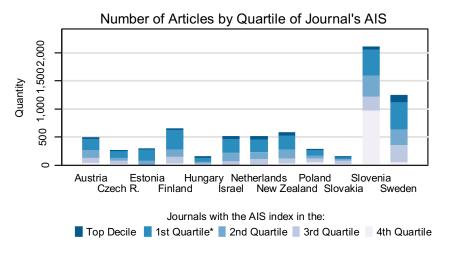


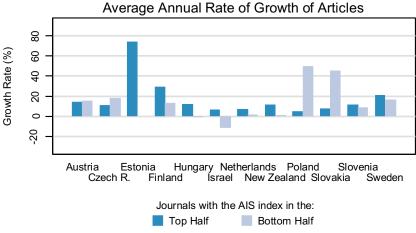


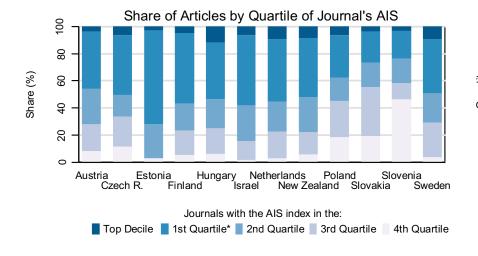
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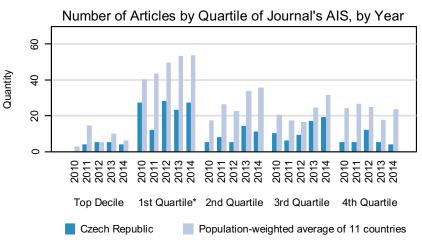
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ENGINEERING, MECHANICAL





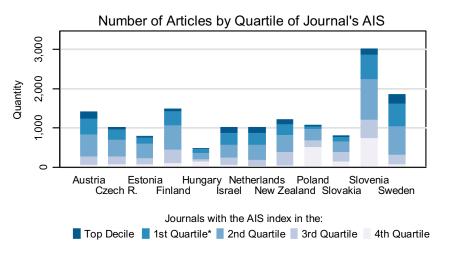


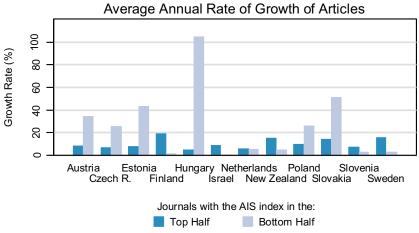


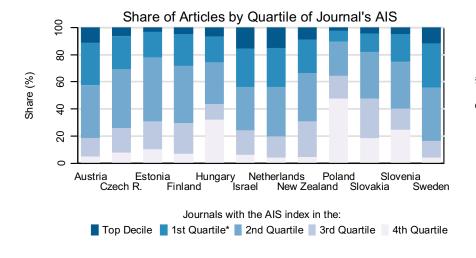
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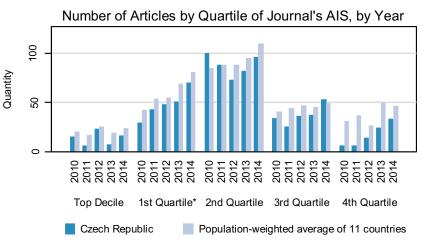
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ENGINEERING, MULTIDISCIPLINARY





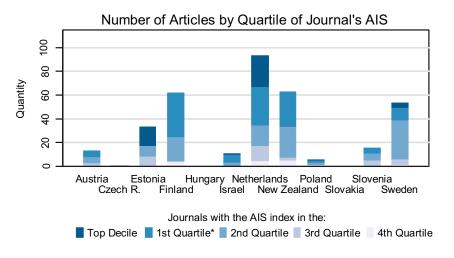


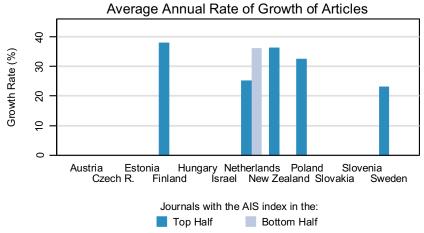


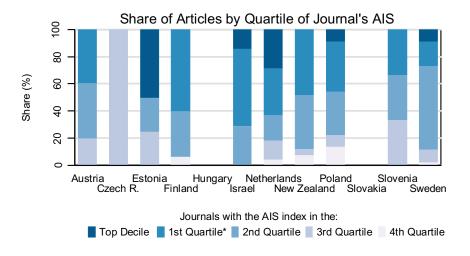
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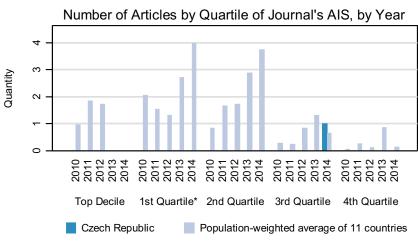
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ENGINEERING, OCEAN





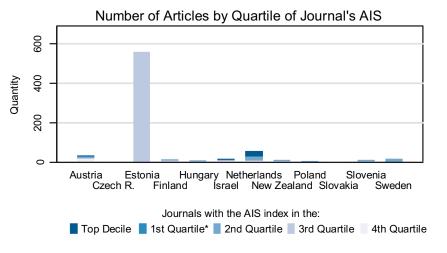


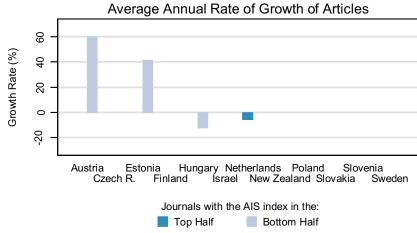


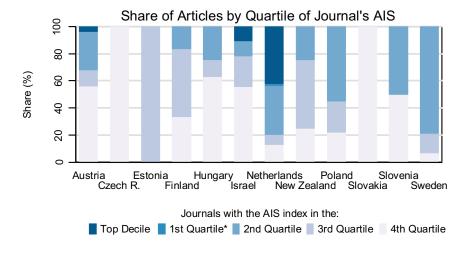
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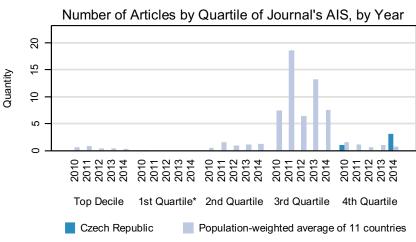
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ENGINEERING, PETROLEUM





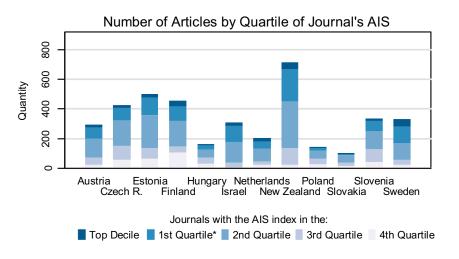


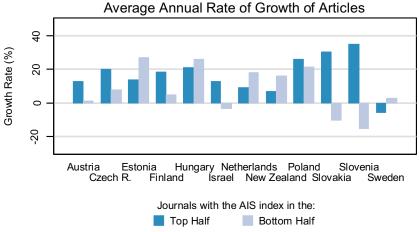


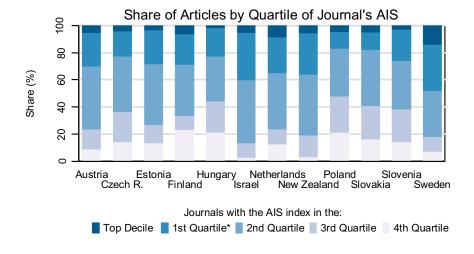
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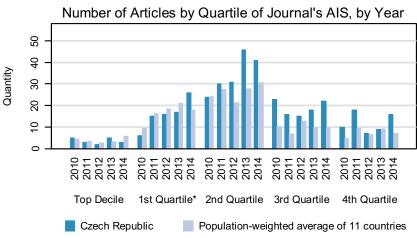
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ENTOMOLOGY





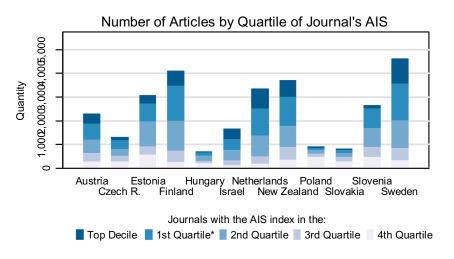


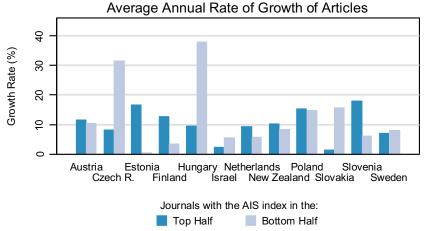


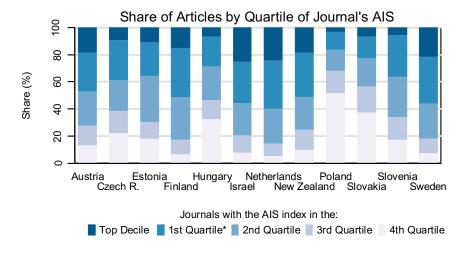
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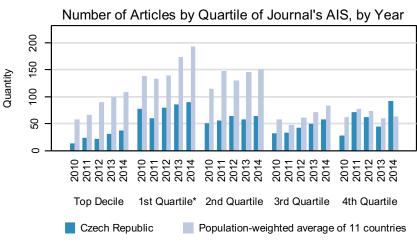
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ENVIRONMENTAL SCIENCES





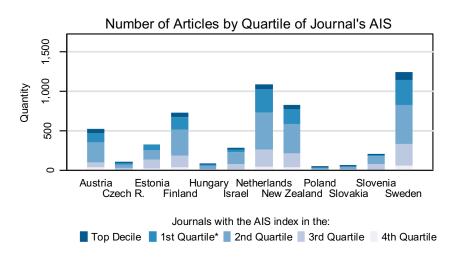


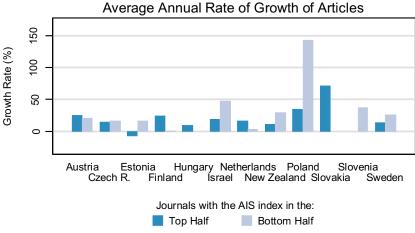


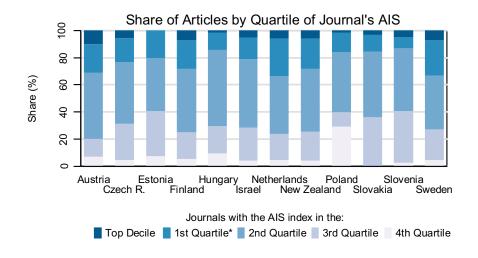
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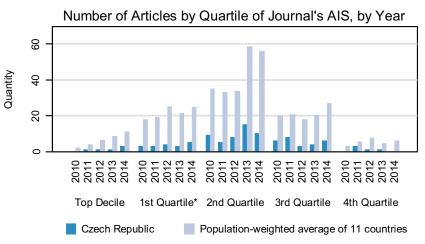
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ENVIRONMENTAL STUDIES





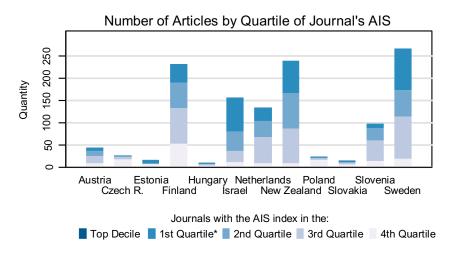


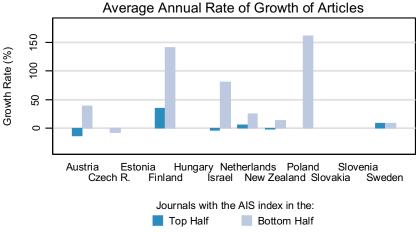


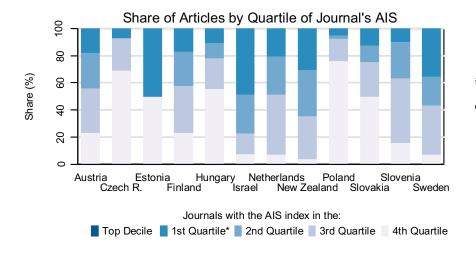
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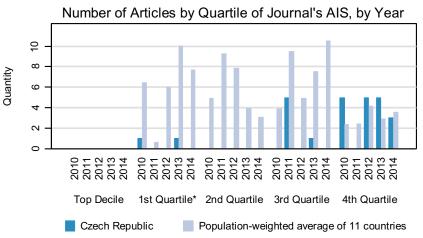
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ERGONOMICS





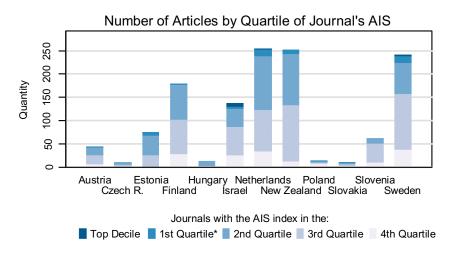


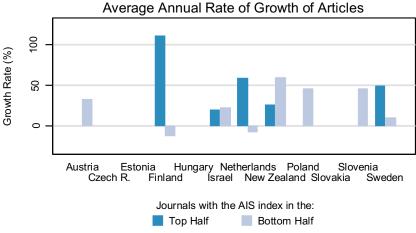


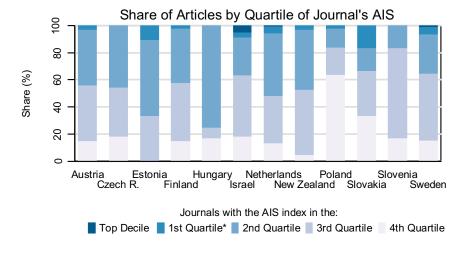
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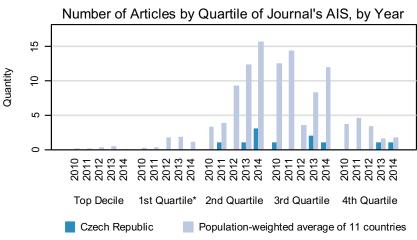
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ETHICS





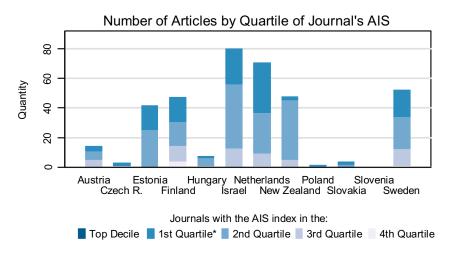


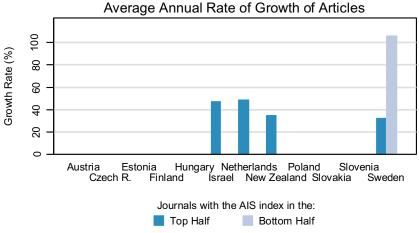


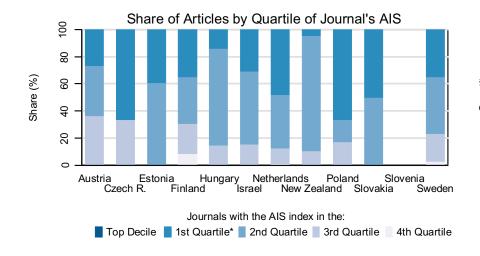
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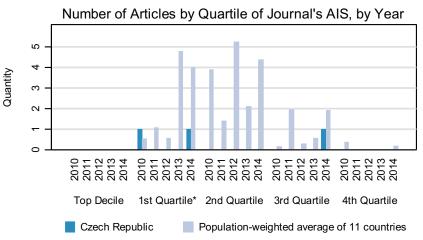
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ETHNIC STUDIES





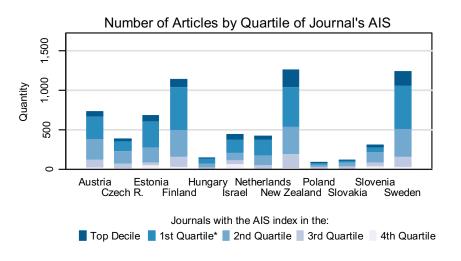


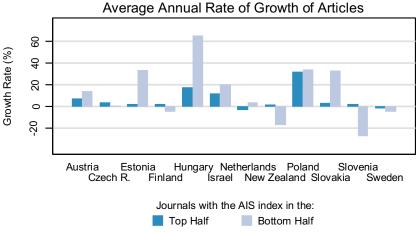


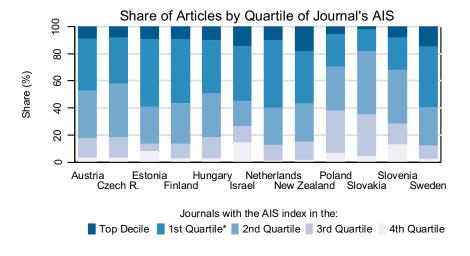
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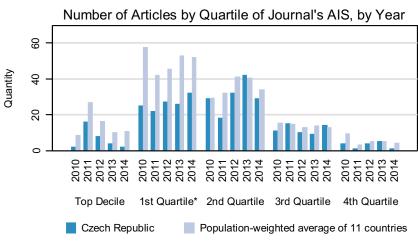
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EVOLUTIONARY BIOLOGY





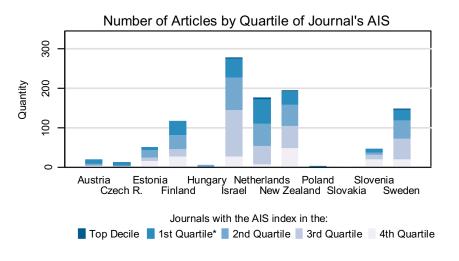


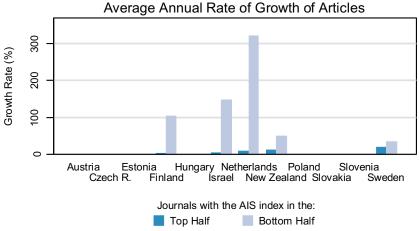


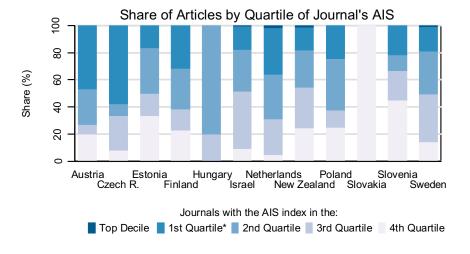
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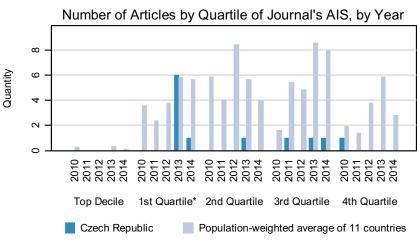
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FAMILY STUDIES





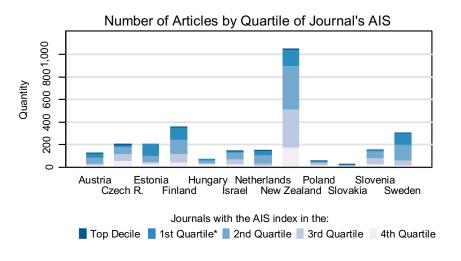


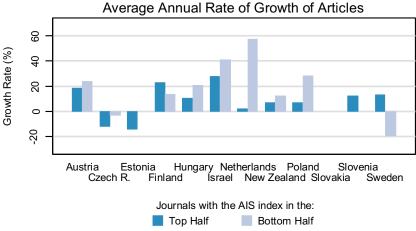


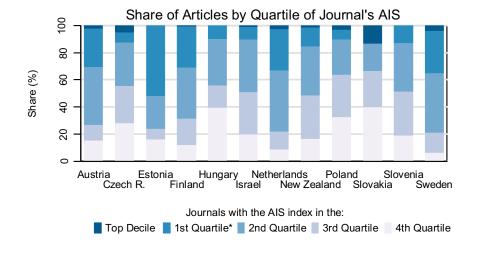
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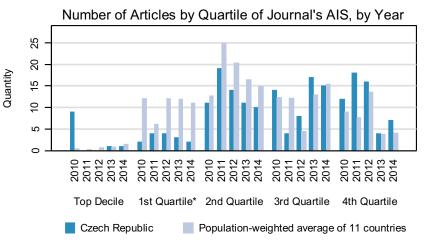
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FISHERIES





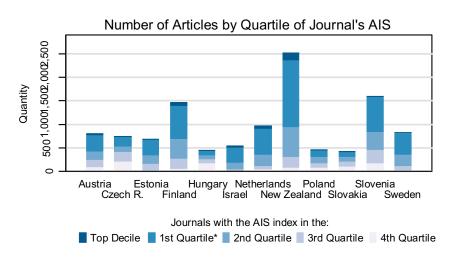


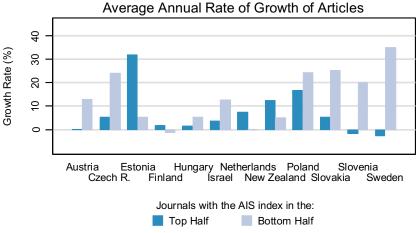


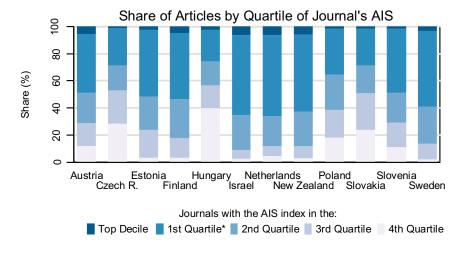
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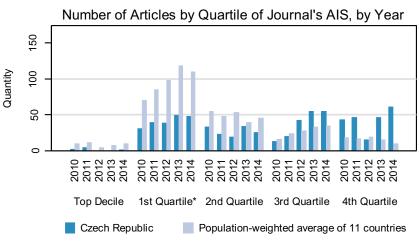
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FOOD SCIENCE & TECHNOLOGY





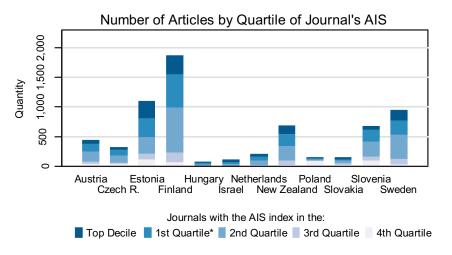


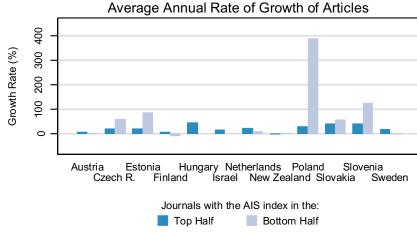


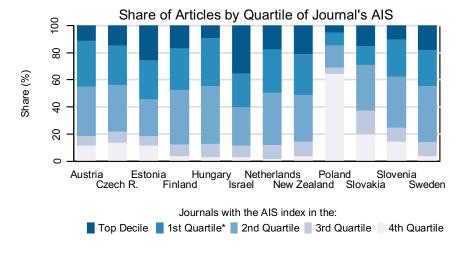
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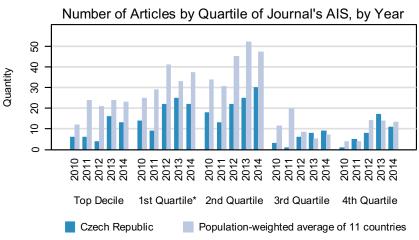
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FORESTRY





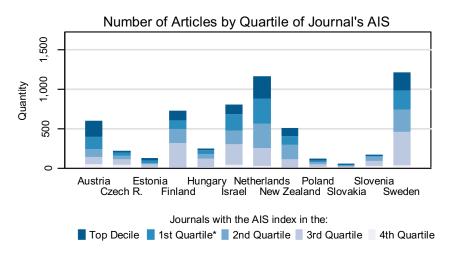


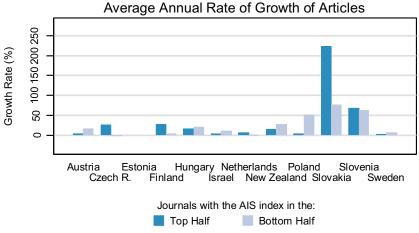


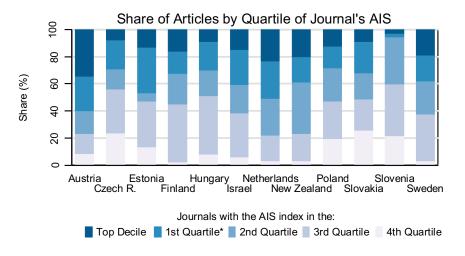
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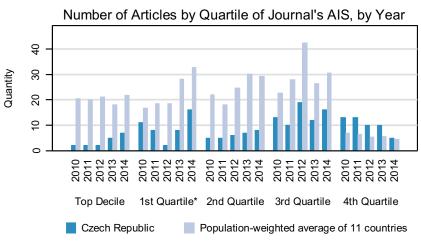
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GASTROENTEROLOGY & HEPATOLOGY





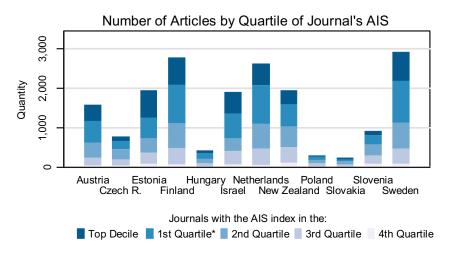


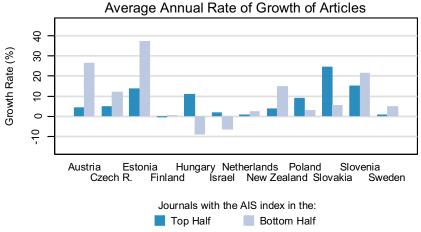


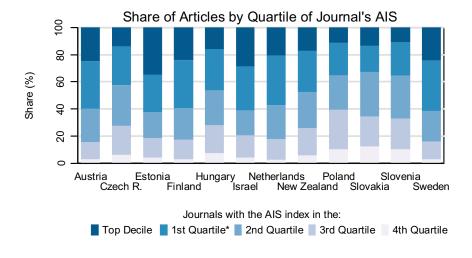
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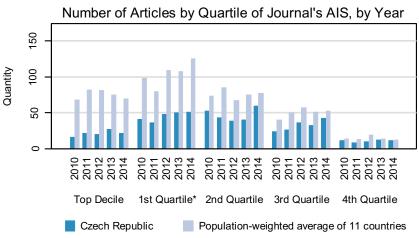
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GENETICS & HEREDITY





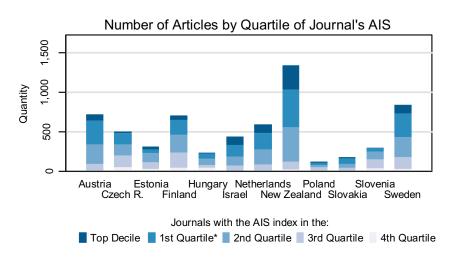


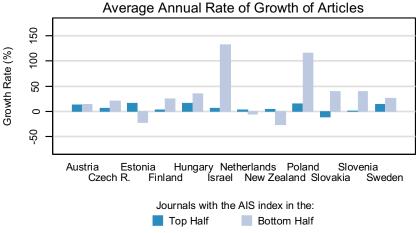


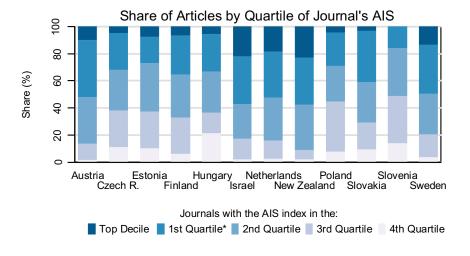
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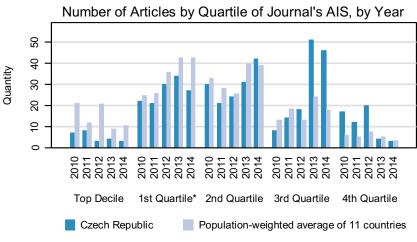
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GEOCHEMISTRY & GEOPHYSICS





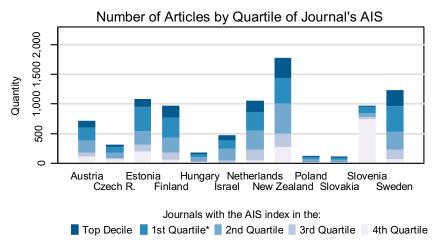


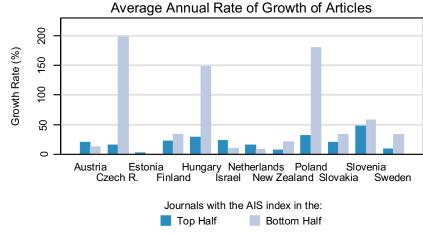


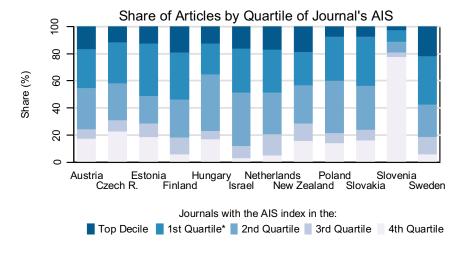
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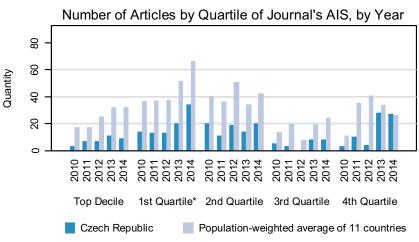
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GEOGRAPHY





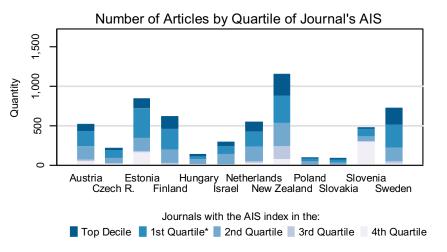


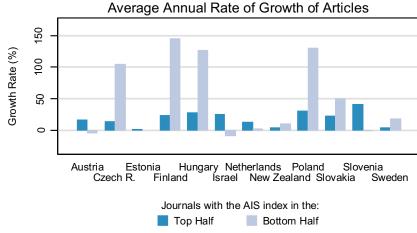


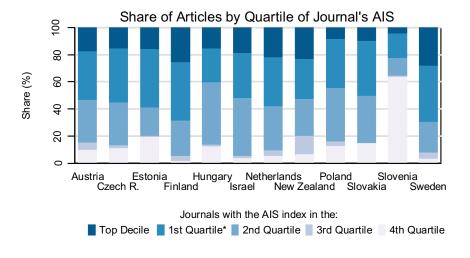
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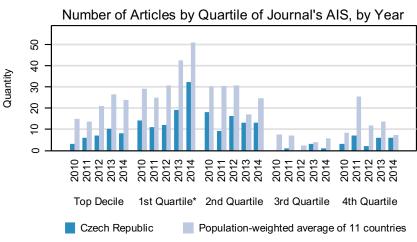
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GEOGRAPHY, PHYSICAL





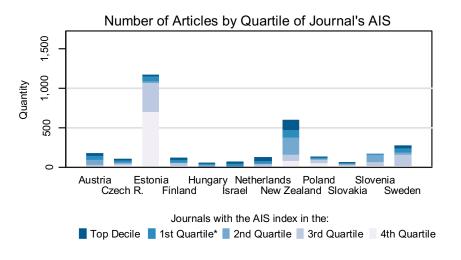


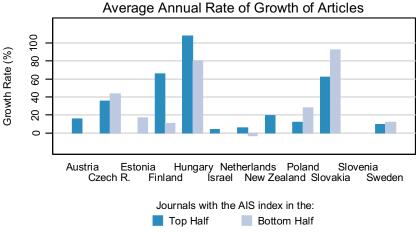


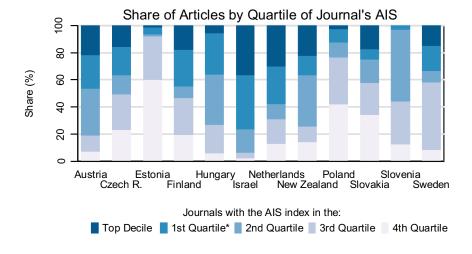
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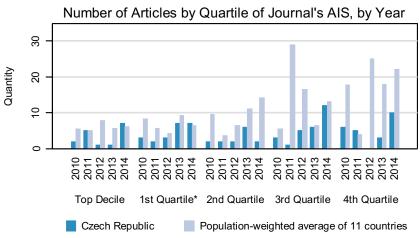
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GEOLOGY





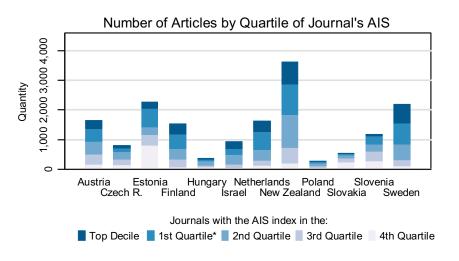


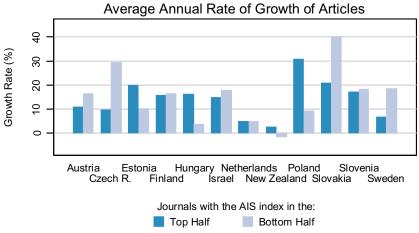


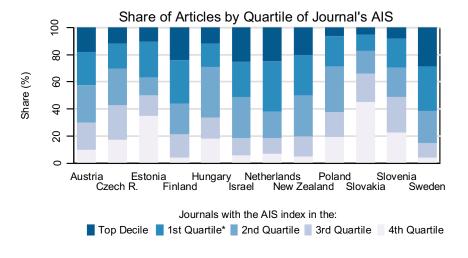
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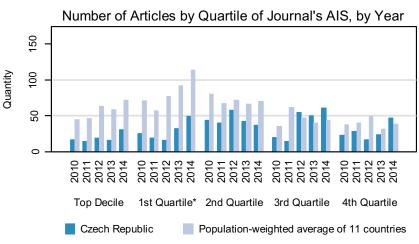
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GEOSCIENCES, MULTIDISCIPLINARY





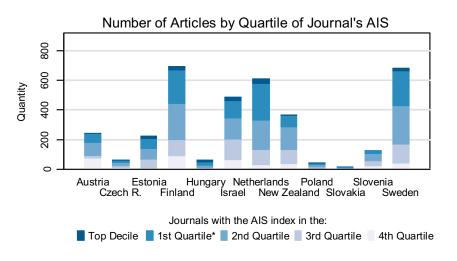


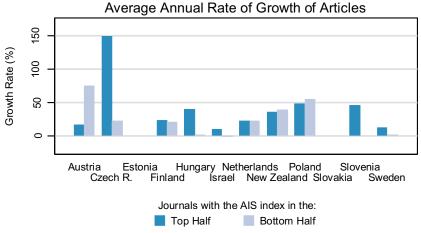


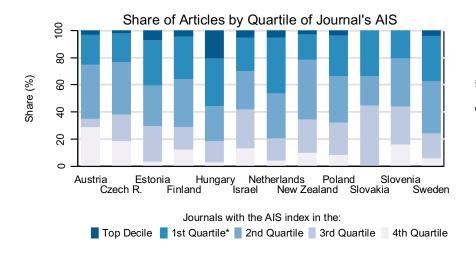
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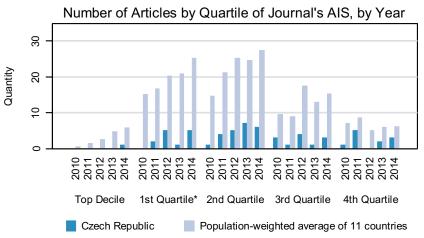
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GERIATRICS & GERONTOLOGY





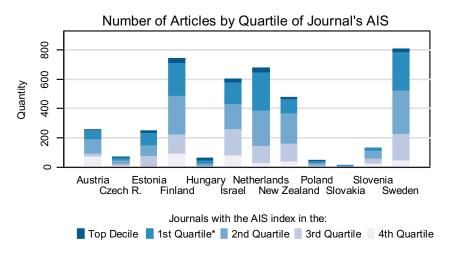


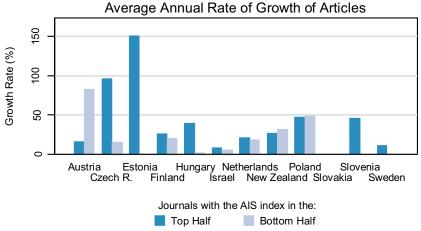


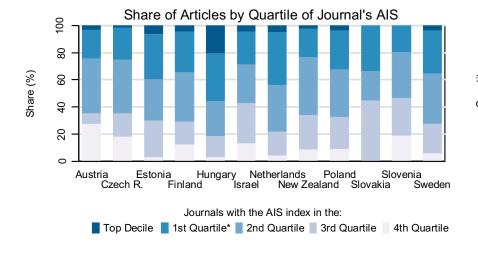
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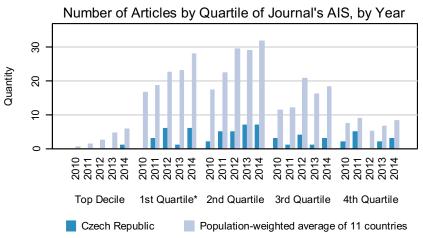
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GERONTOLOGY





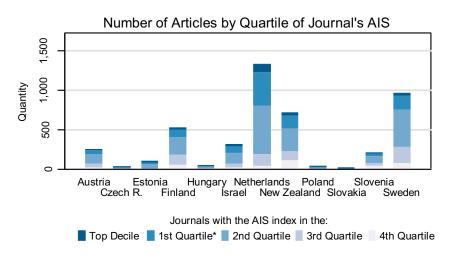


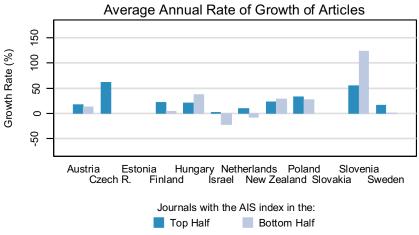


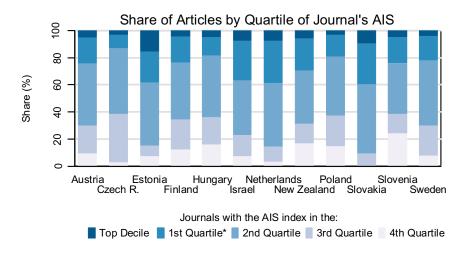
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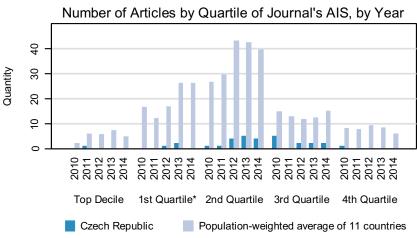
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HEALTH CARE SCIENCES & SERVICES





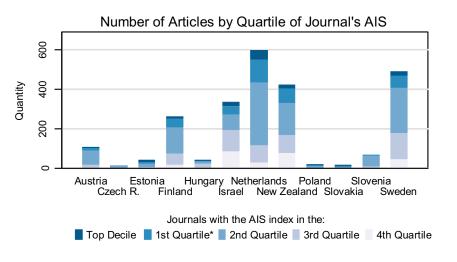


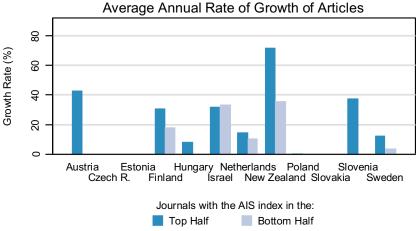


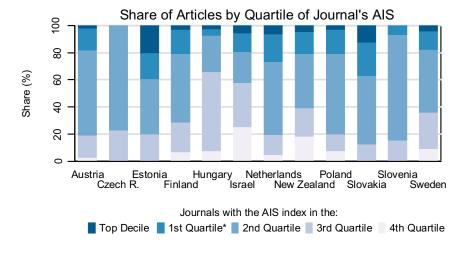
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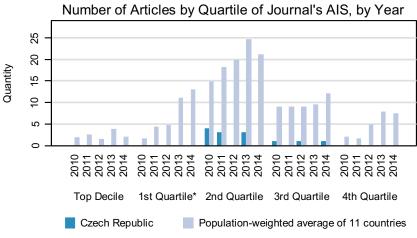
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HEALTH POLICY & SERVICES





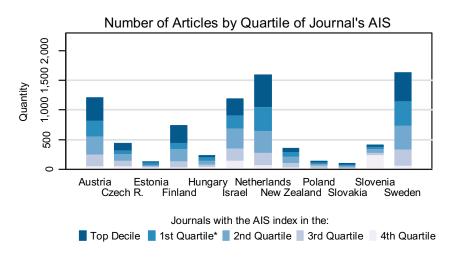


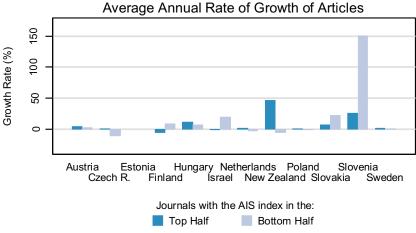


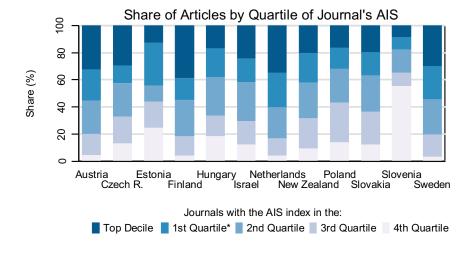
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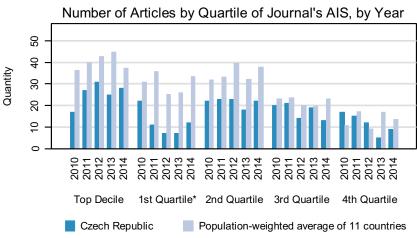
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HEMATOLOGY





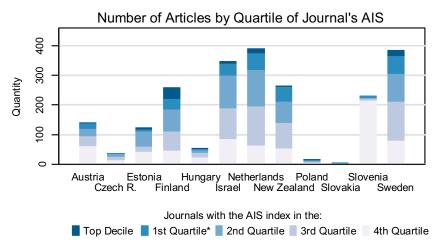


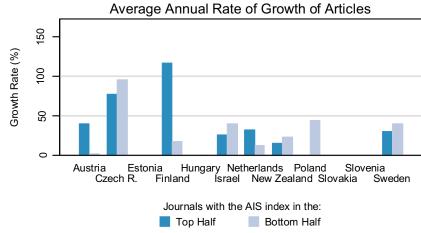


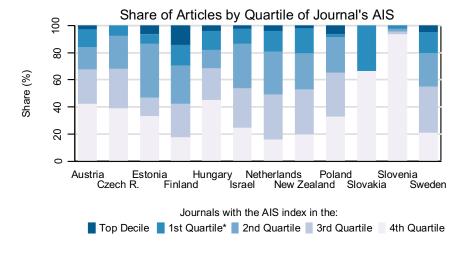
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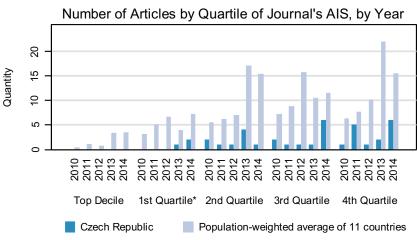
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HISTORY





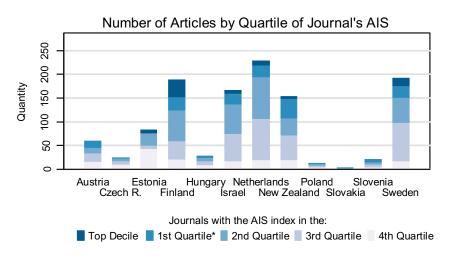


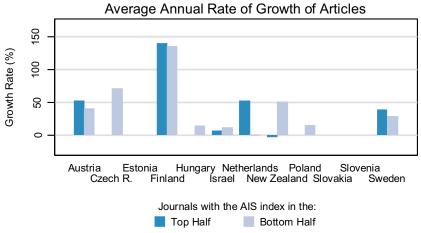


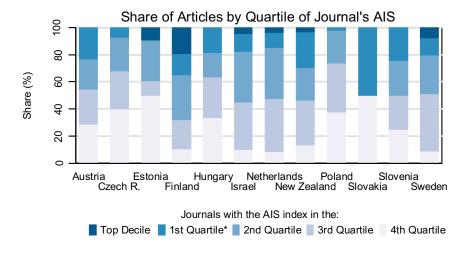
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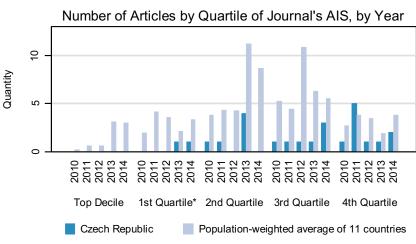
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HISTORY & PHILOSOPHY OF SCIENCE





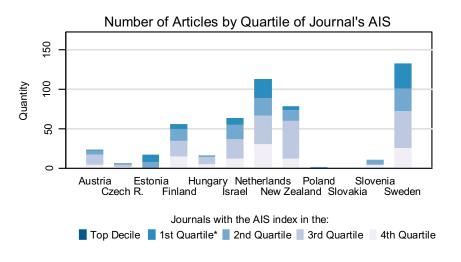


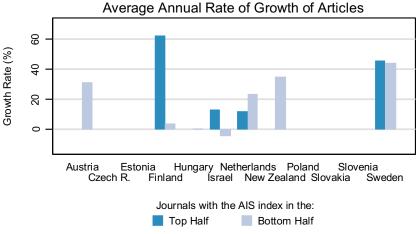


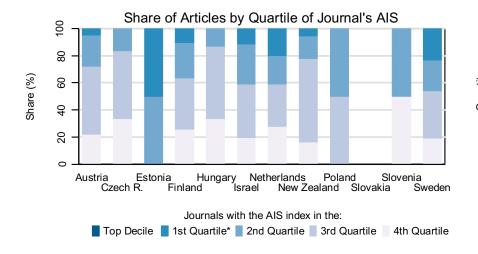
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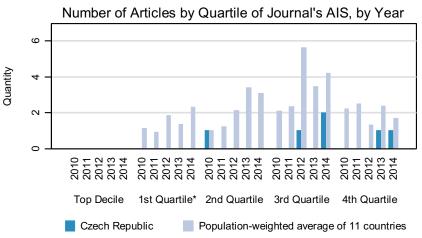
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HISTORY OF SOCIAL SCIENCES





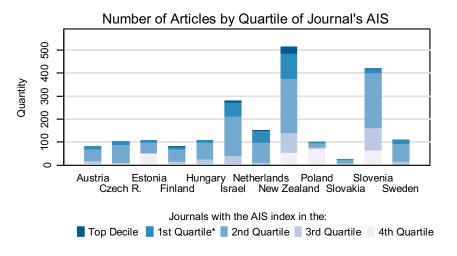


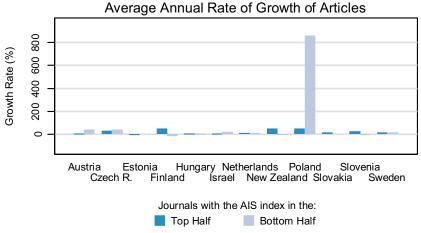


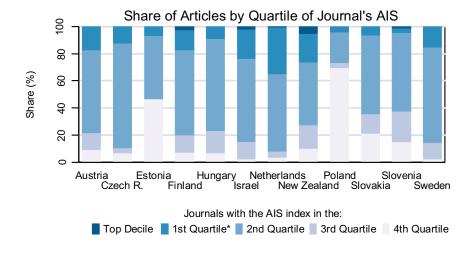
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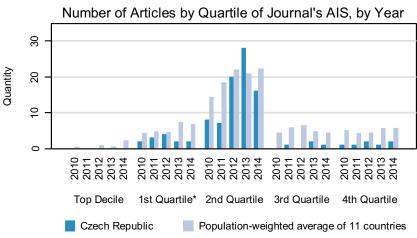
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HORTICULTURE





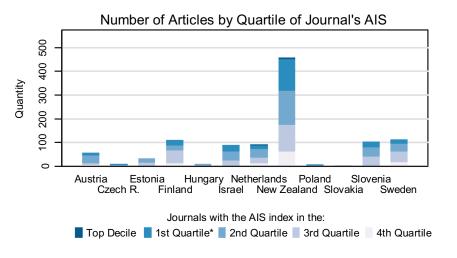


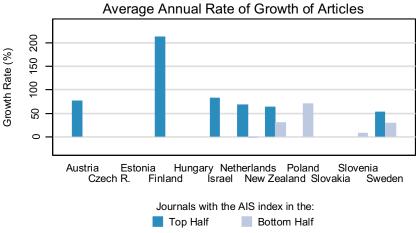


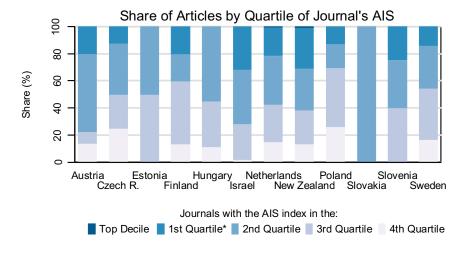
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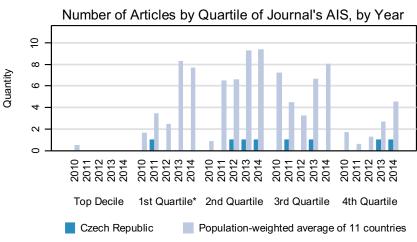
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HOSPITALITY, LEISURE, SPORT & TOURISM





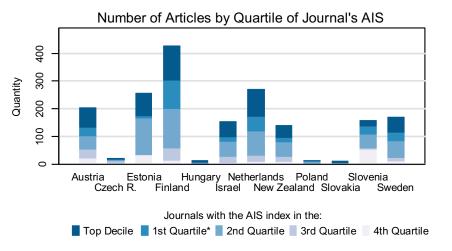


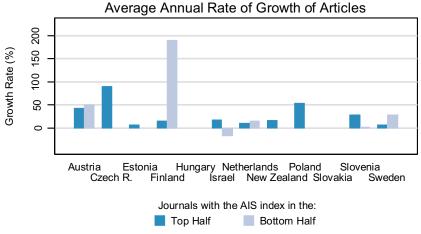


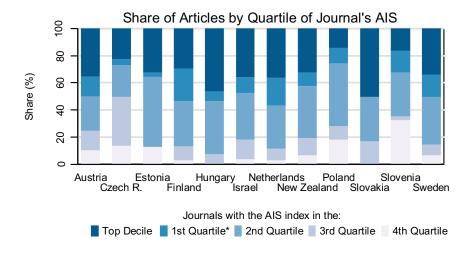
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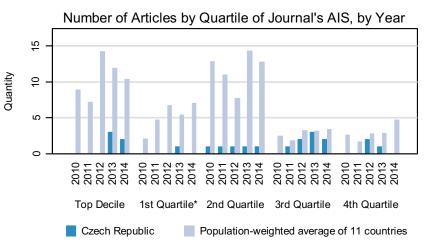
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IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY





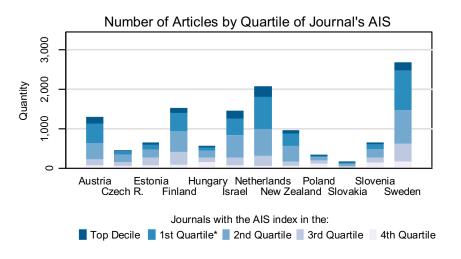


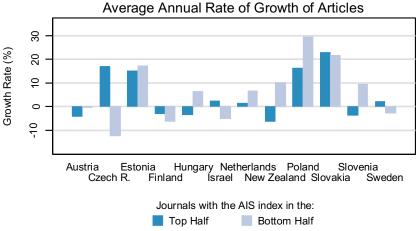


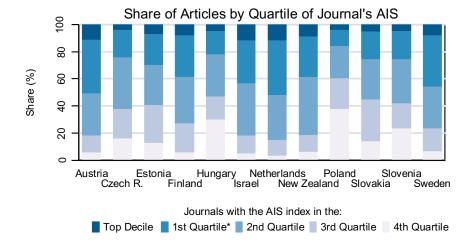
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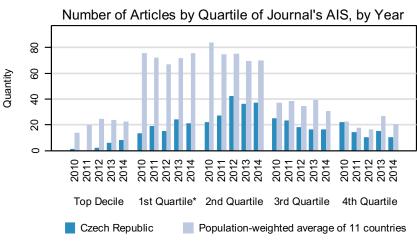
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IMMUNOLOGY





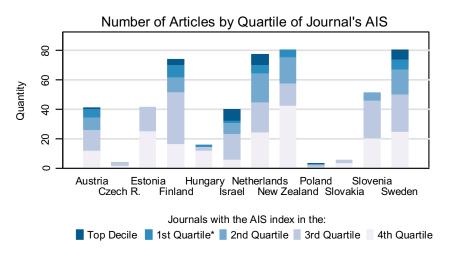


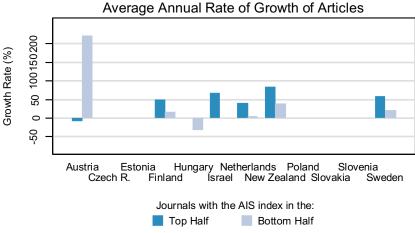


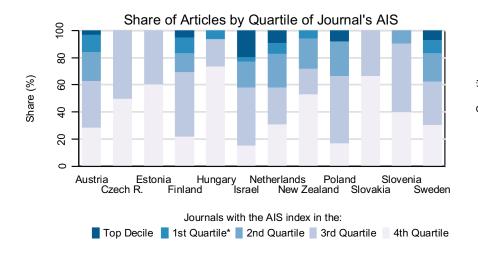
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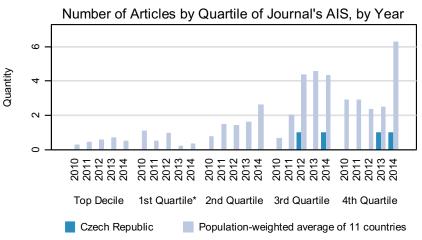
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INDUSTRIAL RELATIONS & LABOR





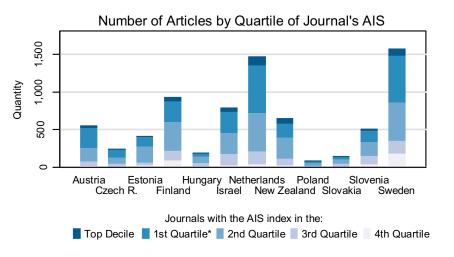


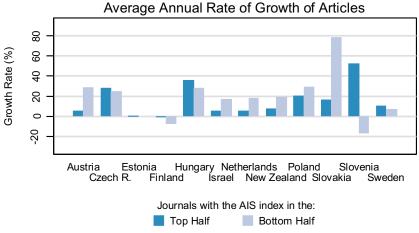


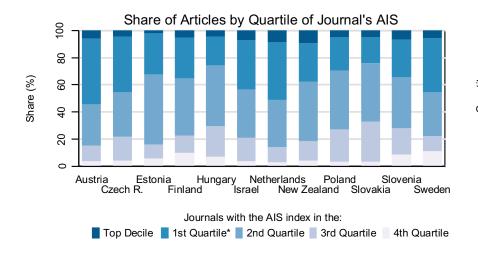
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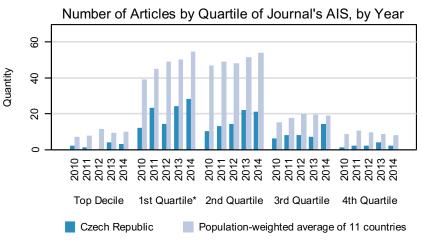
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INFECTIOUS DISEASES





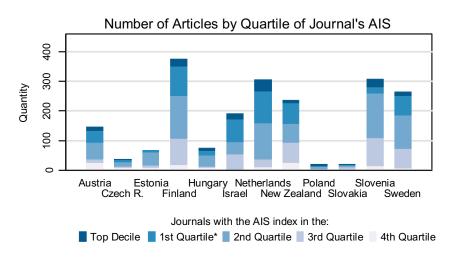


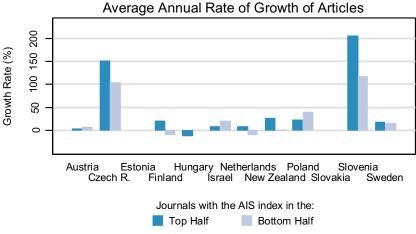


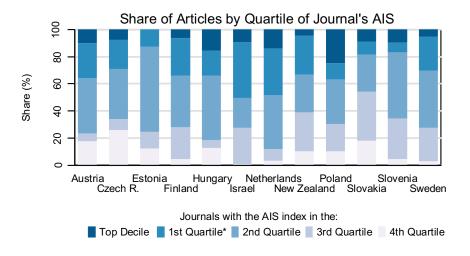
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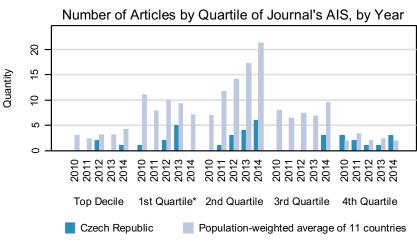
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INFORMATION SCIENCE & LIBRARY SCIENCE





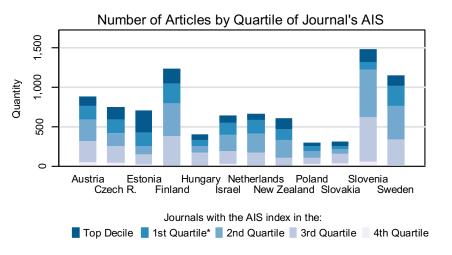


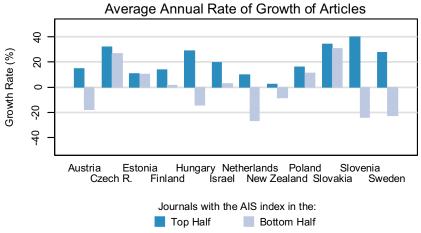


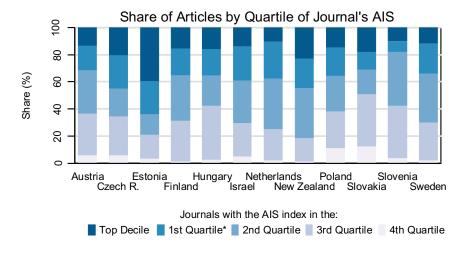
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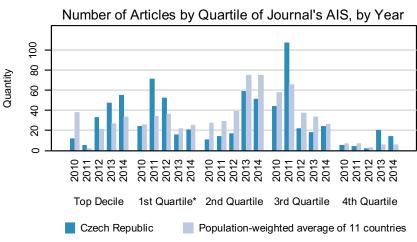
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INSTRUMENTS & INSTRUMENTATION





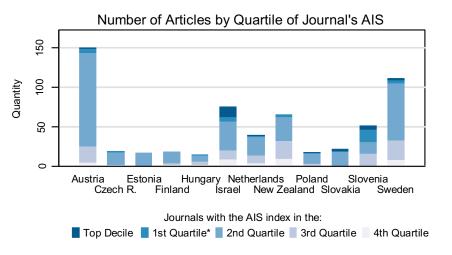


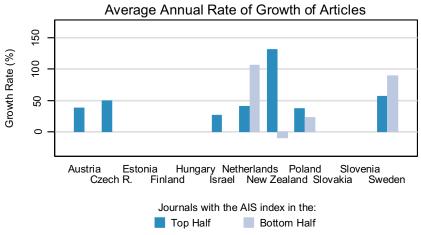


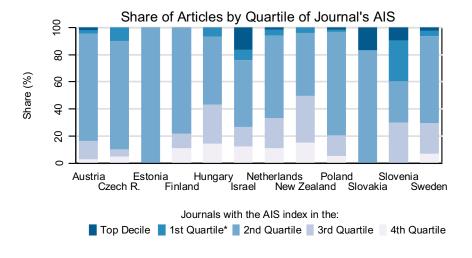
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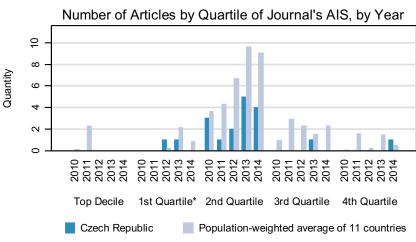
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INTEGRATIVE & COMPLEMENTARY MEDICINE





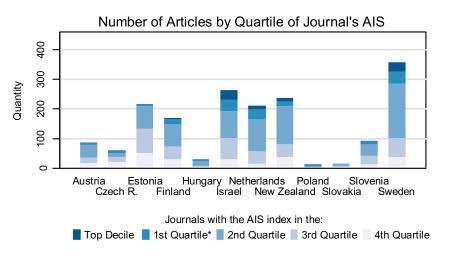


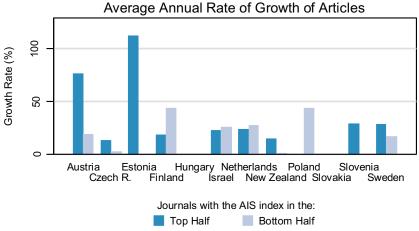


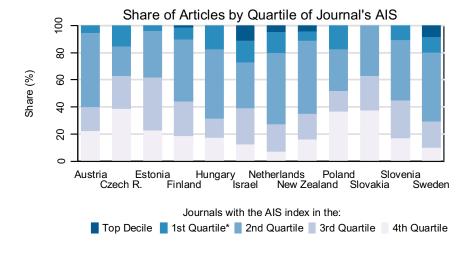
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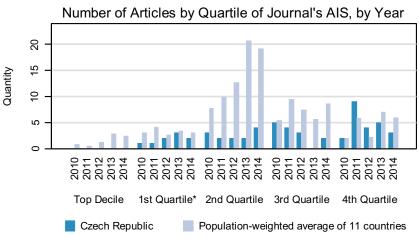
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INTERNATIONAL RELATIONS





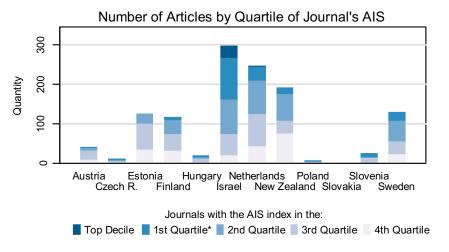


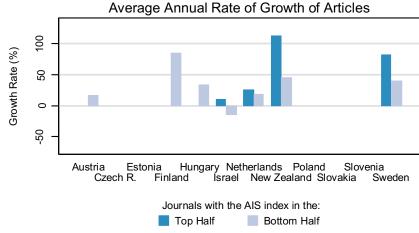


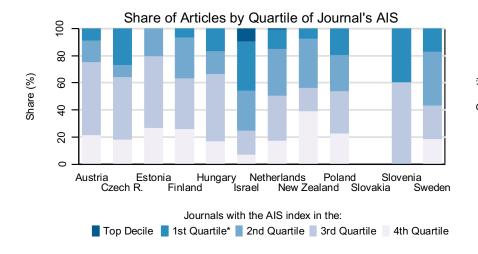
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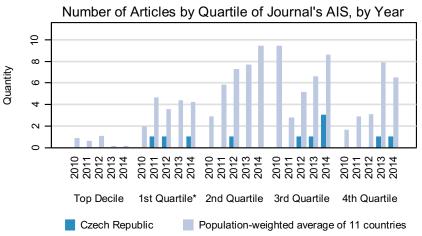
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LAW





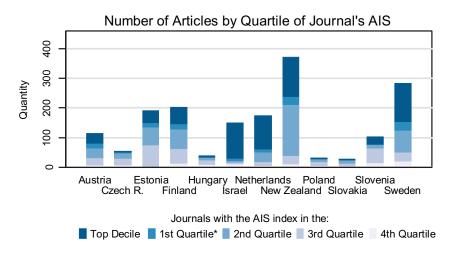


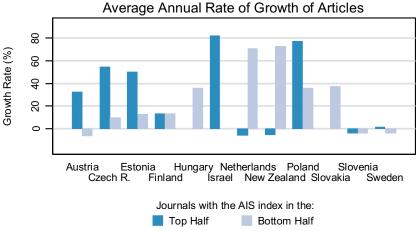


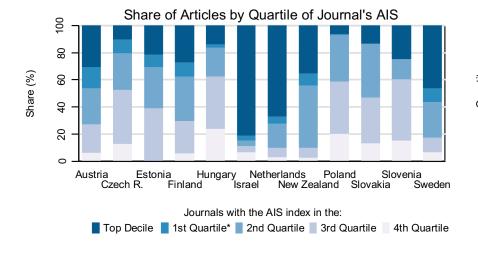
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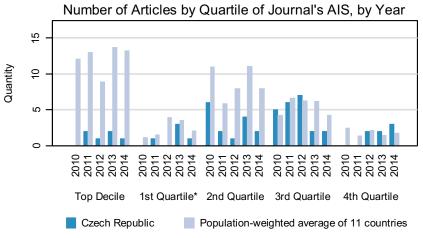
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LIMNOLOGY





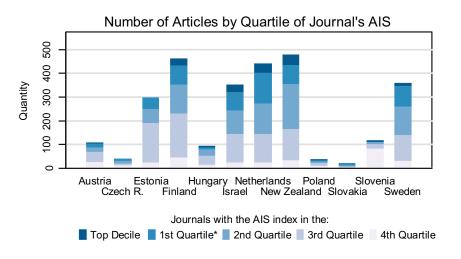


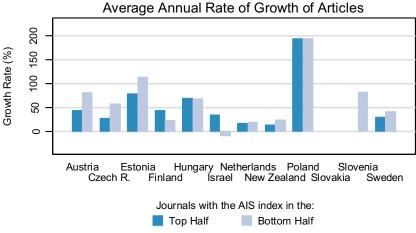


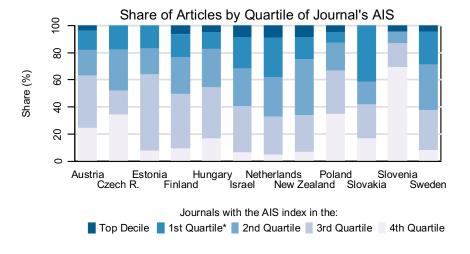
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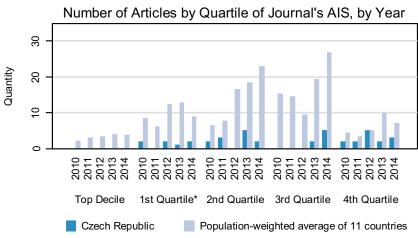
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LINGUISTICS





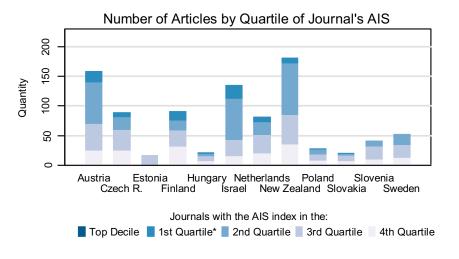


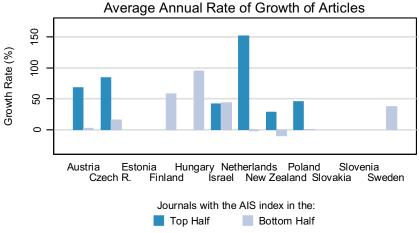


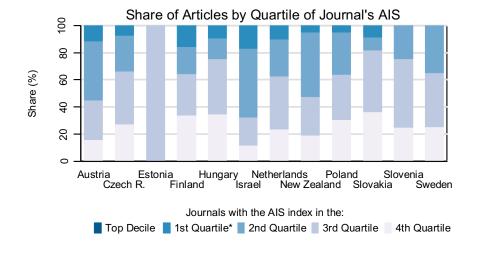
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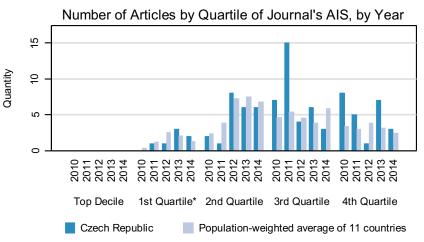
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LOGIC





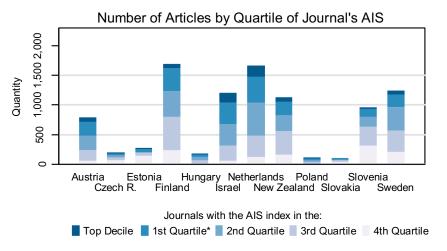


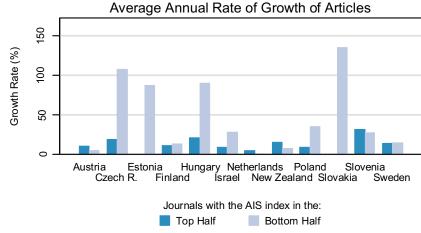


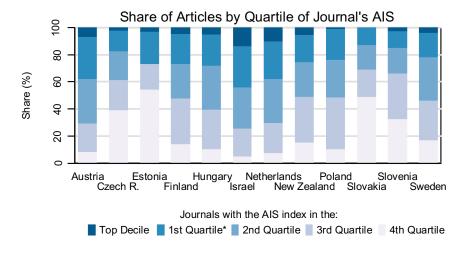
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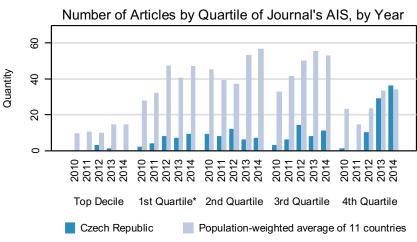
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MANAGEMENT





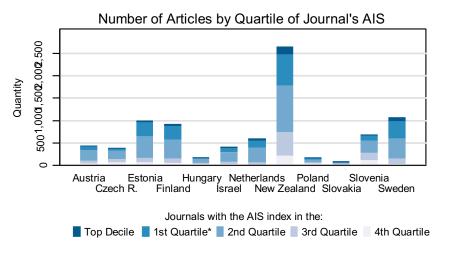


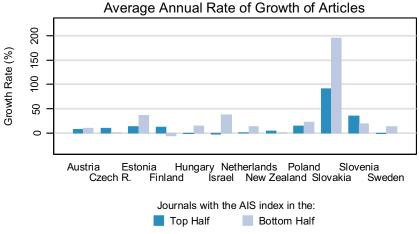


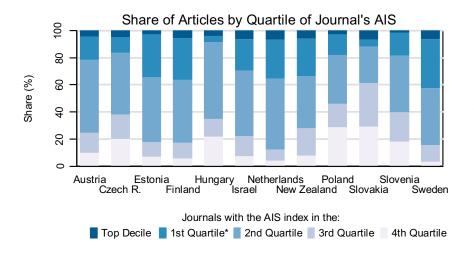
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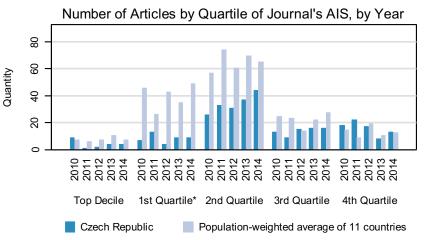
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MARINE & FRESHWATER BIOLOGY





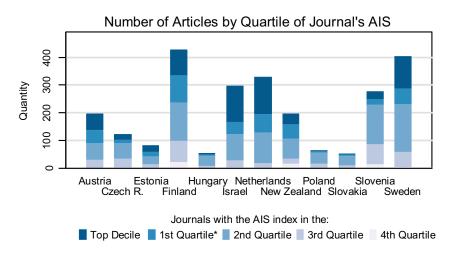


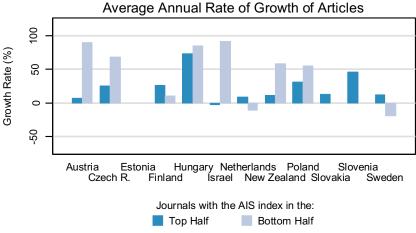


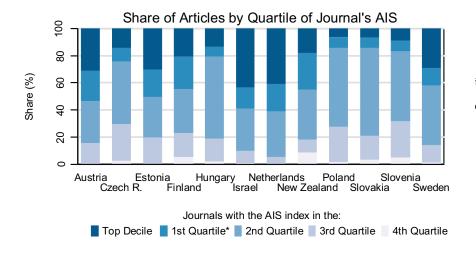
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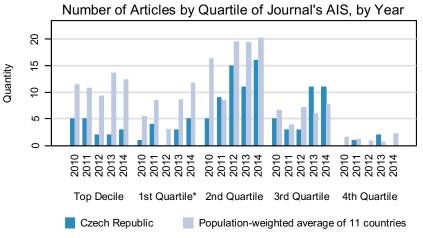
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MATERIALS SCIENCE, BIOMATERIALS





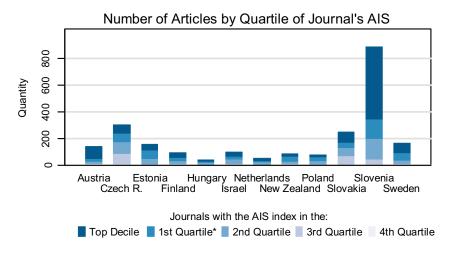


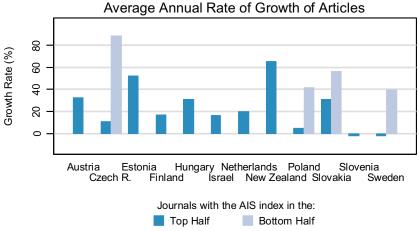


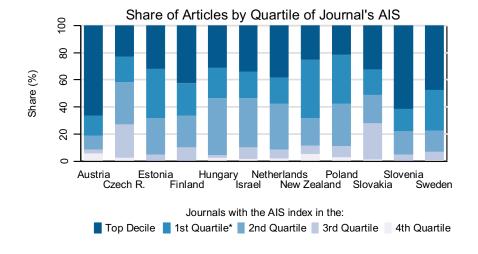
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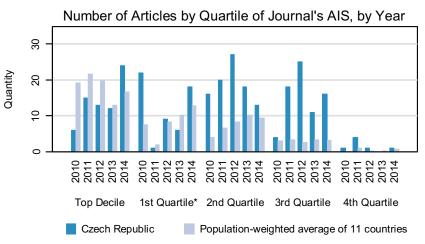
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MATERIALS SCIENCE, CERAMICS





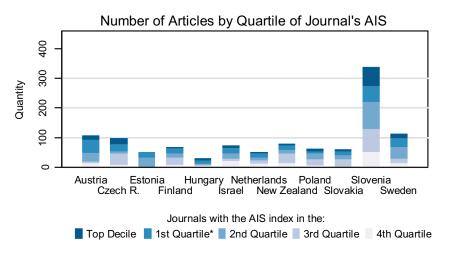


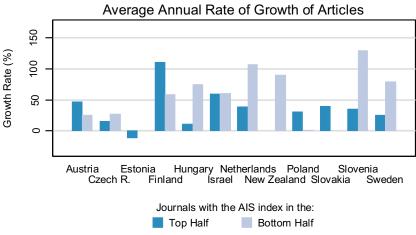


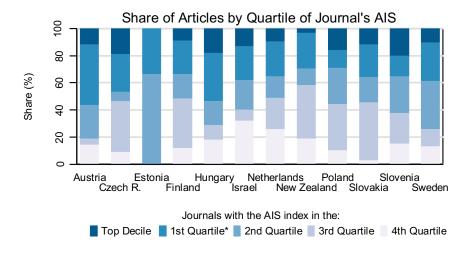
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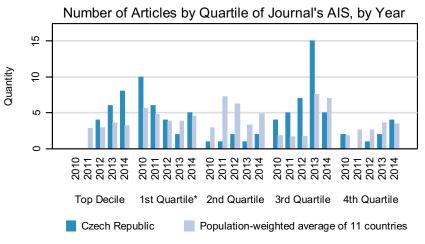
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MATERIALS SCIENCE, CHARACTERIZATION & TESTING





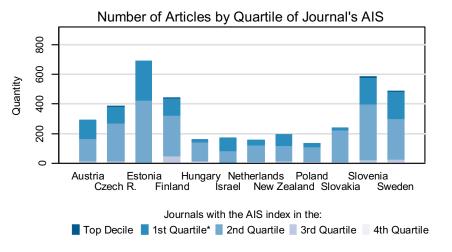


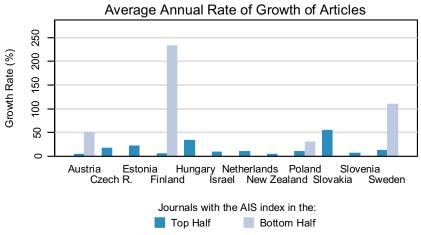


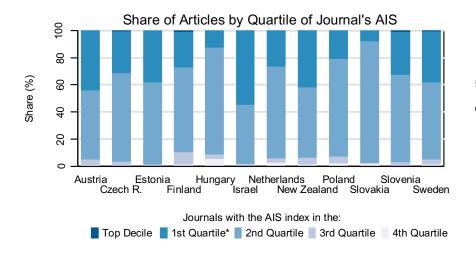
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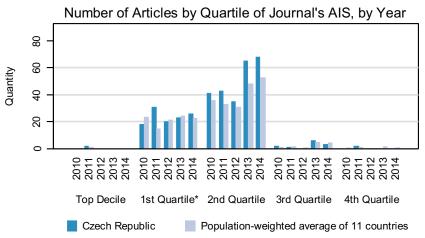
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MATERIALS SCIENCE, COATINGS & FILMS





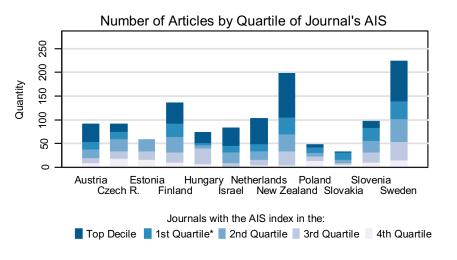


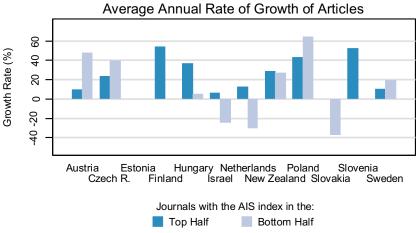


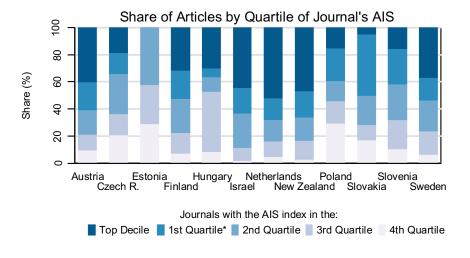
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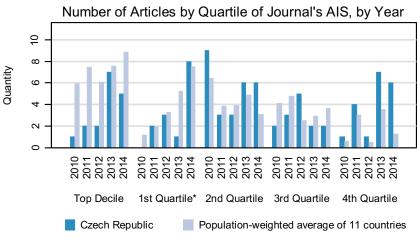
* 1st Quartile excludes the Top Decile

MATERIALS SCIENCE, COMPOSITES





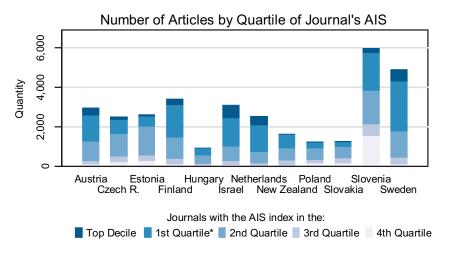


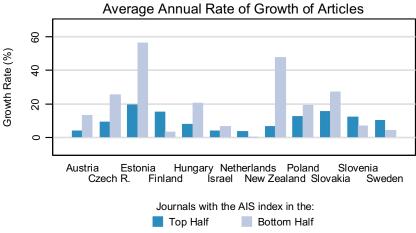


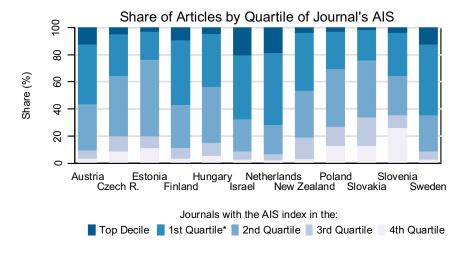
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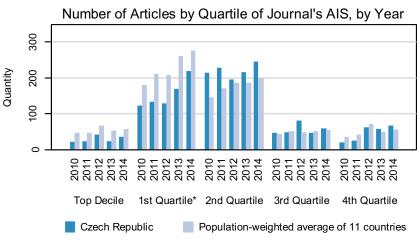
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MATERIALS SCIENCE, MULTIDISCIPLINARY





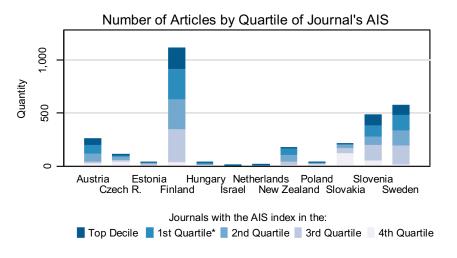


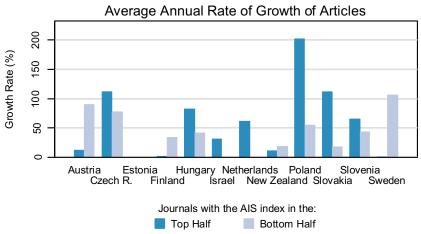


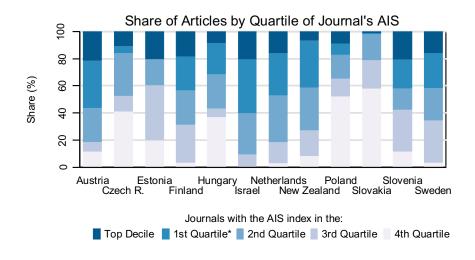
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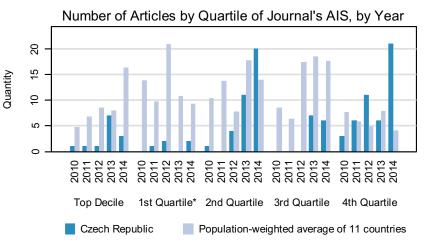
* 1st Quartile excludes the Top Decile

MATERIALS SCIENCE, PAPER & WOOD





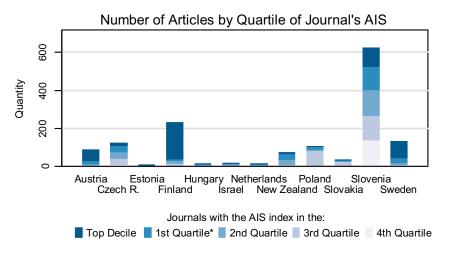


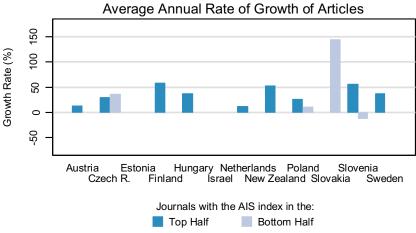


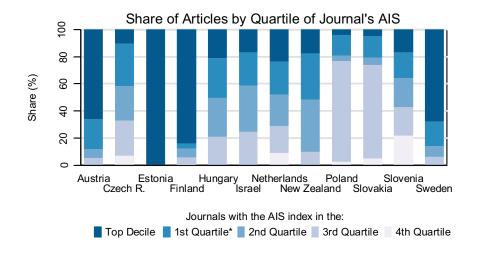
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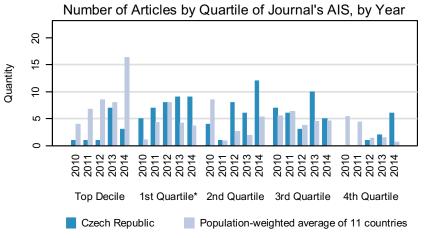
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MATERIALS SCIENCE, TEXTILES





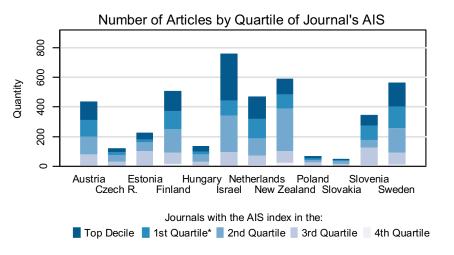


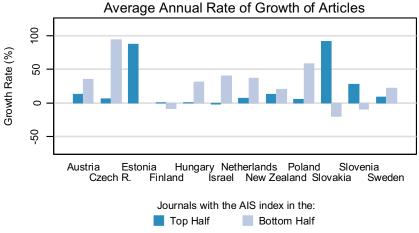


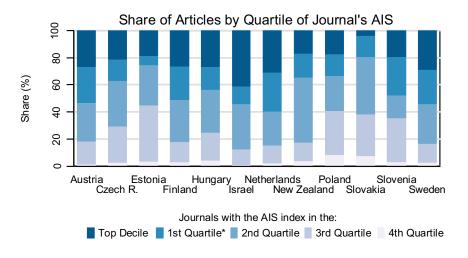
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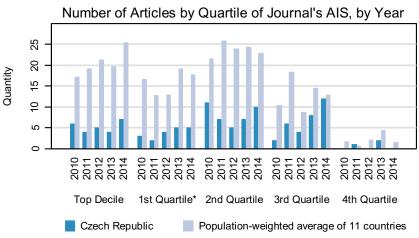
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MATHEMATICAL & COMPUTATIONAL BIOLOGY





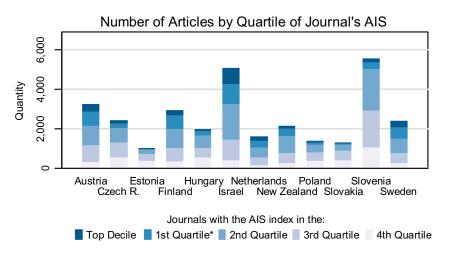


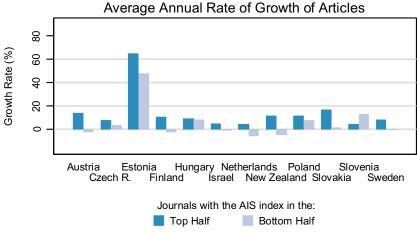


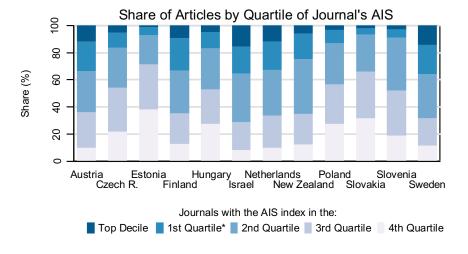
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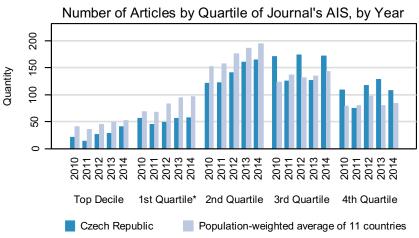
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MATHEMATICS





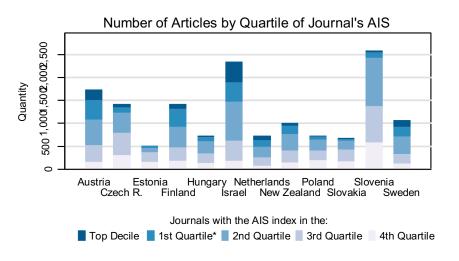


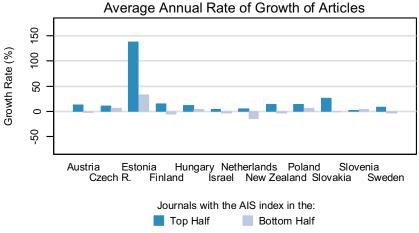


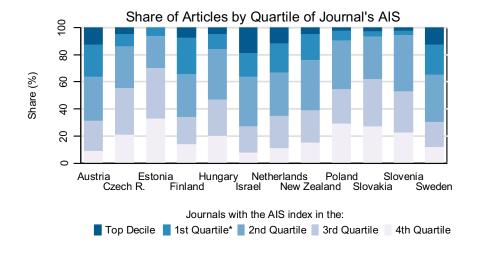
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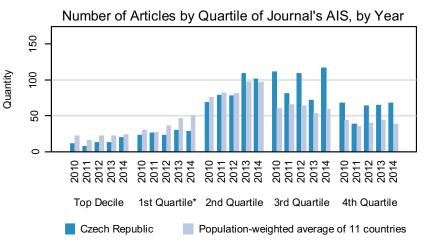
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MATHEMATICS, APPLIED





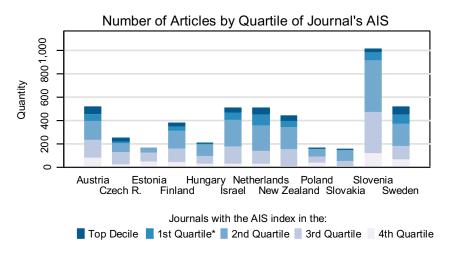


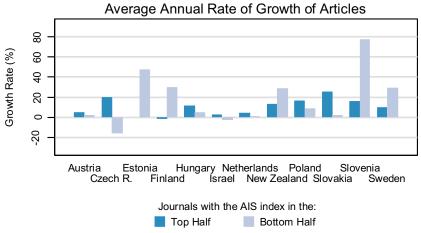


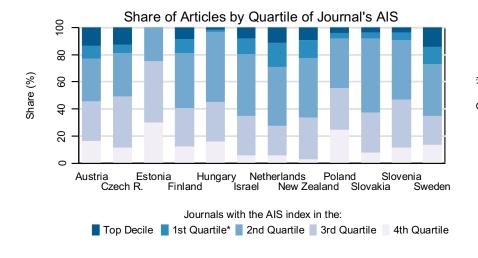
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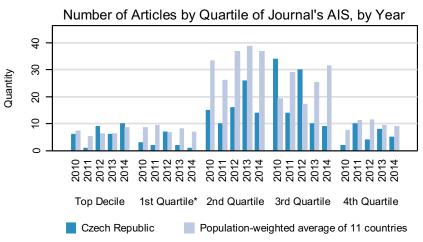
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MATHEMATICS, INTERDISCIPLINARY APPLICATIONS





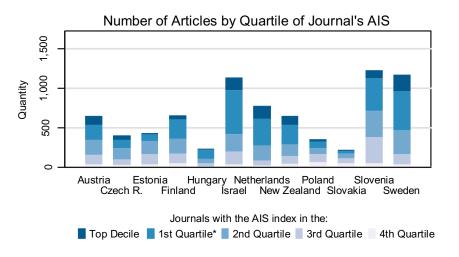


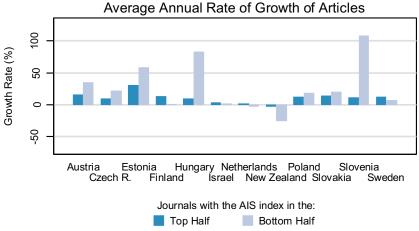


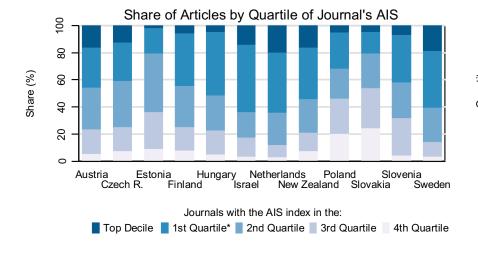
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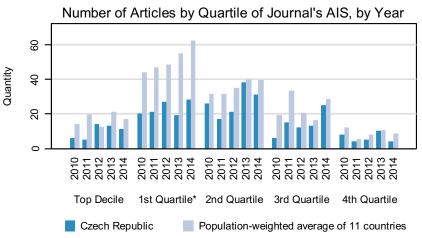
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MECHANICS





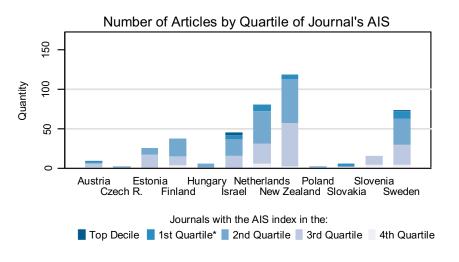


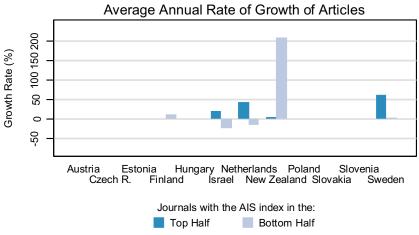


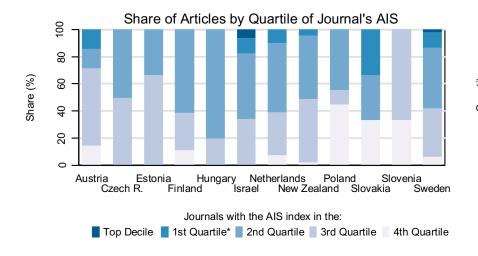
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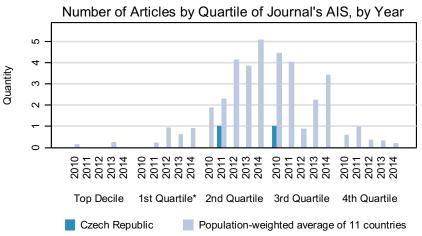
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MEDICAL ETHICS





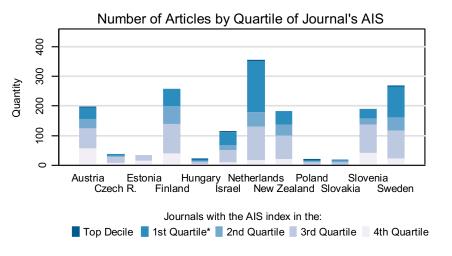


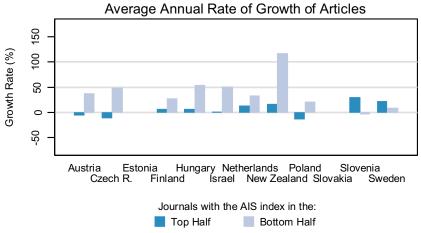


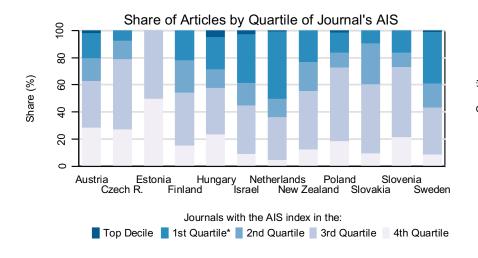
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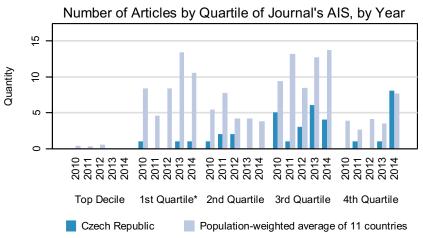
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MEDICAL INFORMATICS





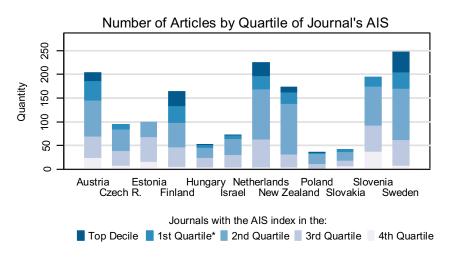


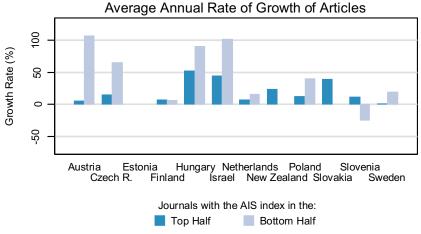


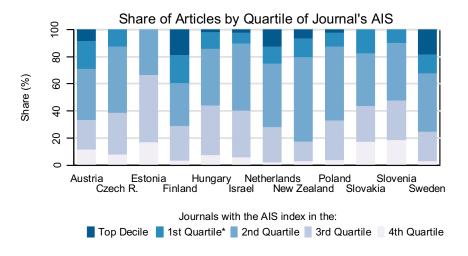
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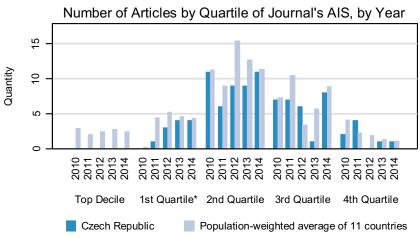
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MEDICAL LABORATORY TECHNOLOGY





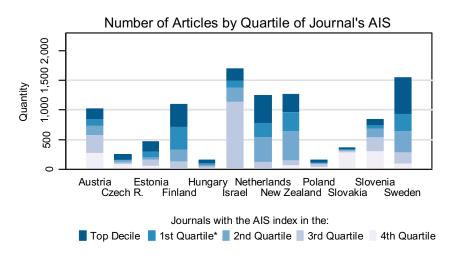


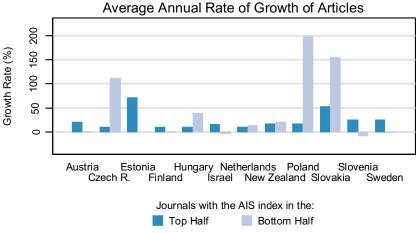


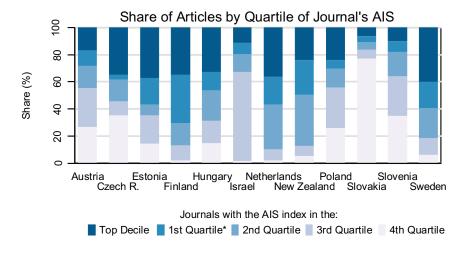
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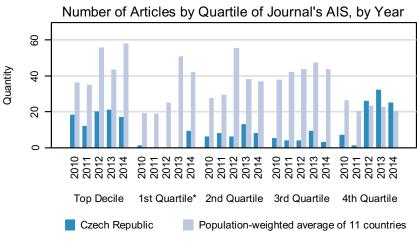
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MEDICINE, GENERAL & INTERNAL





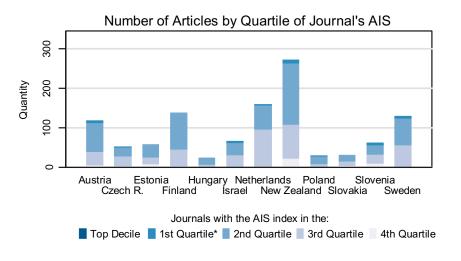


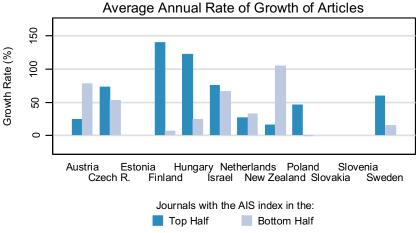


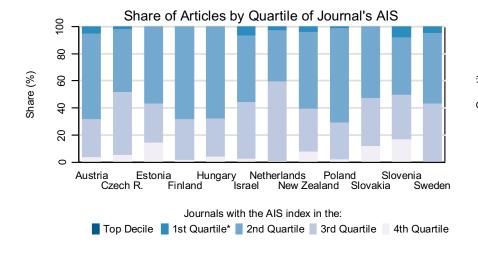
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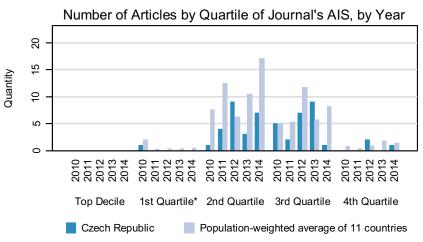
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MEDICINE, LEGAL





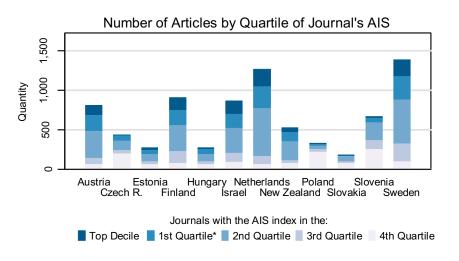


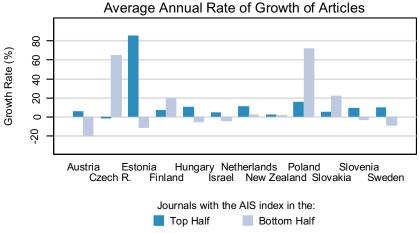


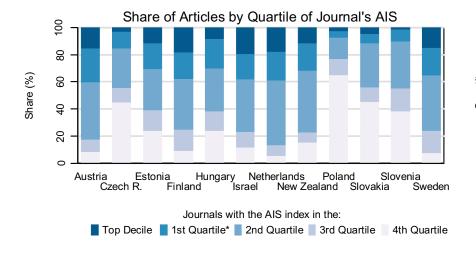
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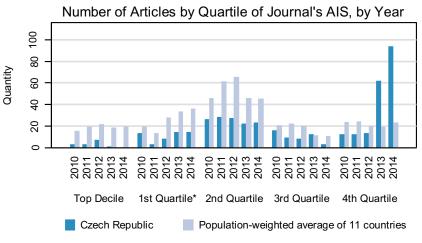
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MEDICINE, RESEARCH & EXPERIMENTAL





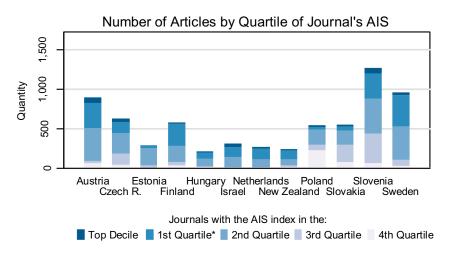


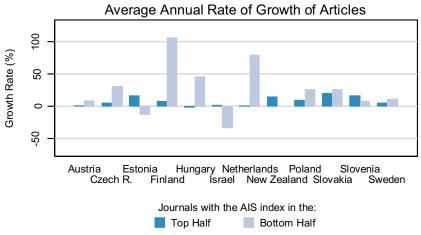


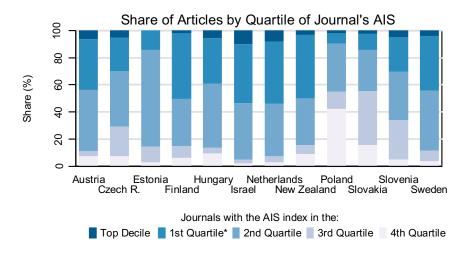
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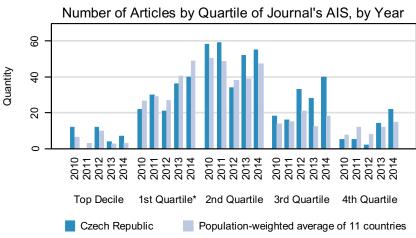
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METALLURGY & METALLURGICAL ENGINEERING





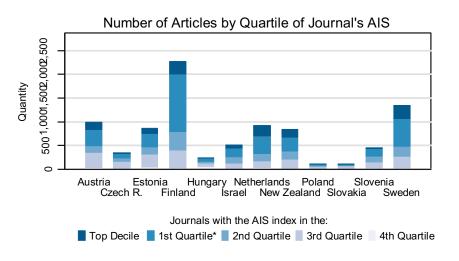


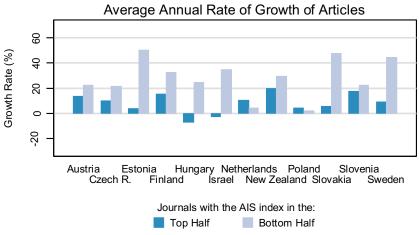


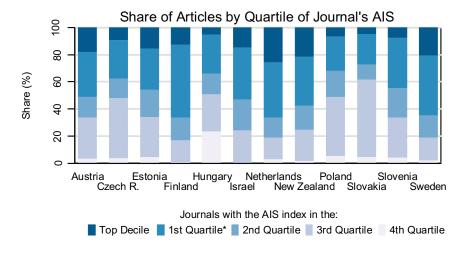
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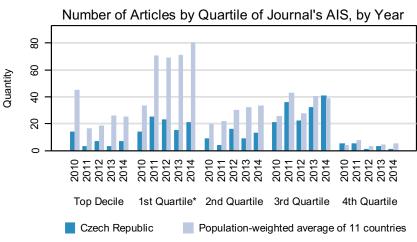
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METEOROLOGY & ATMOSPHERIC SCIENCES





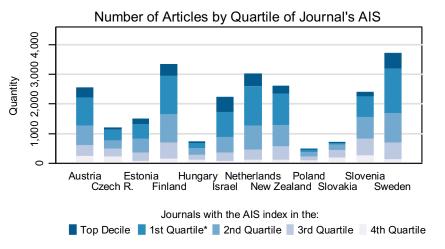


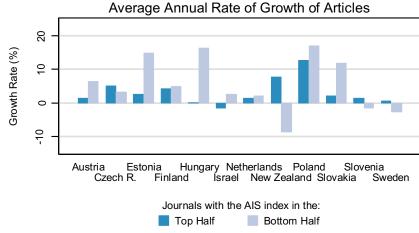


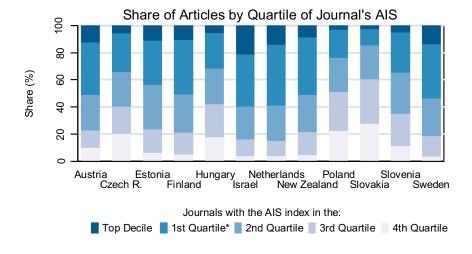
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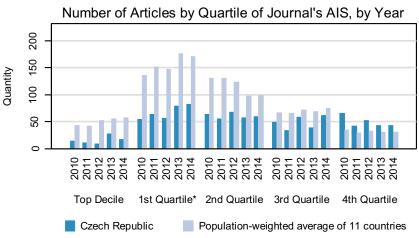
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MICROBIOLOGY





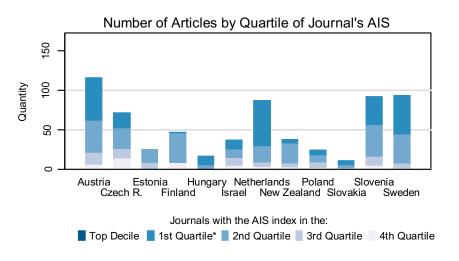


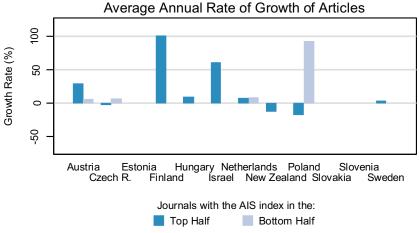


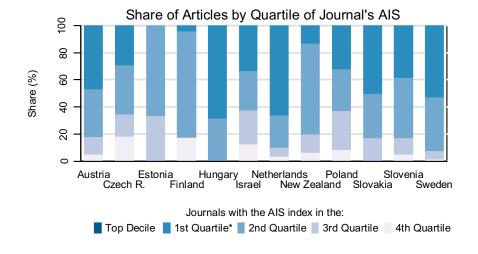
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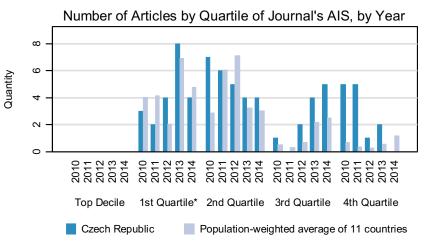
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MICROSCOPY





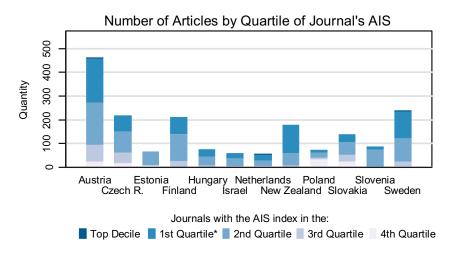


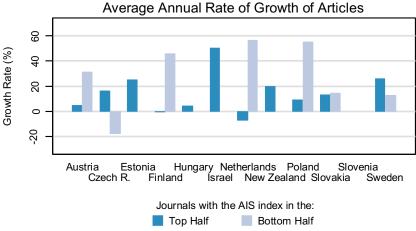


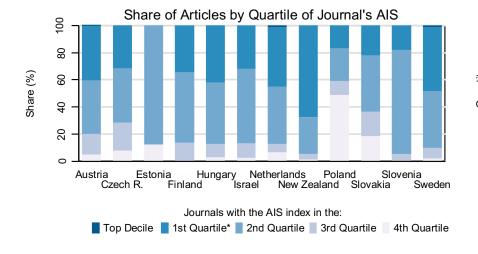
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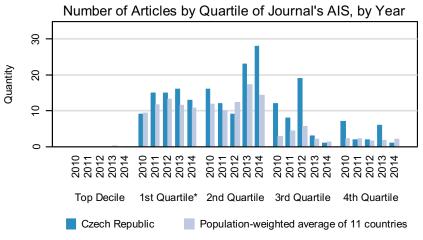
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MINERALOGY





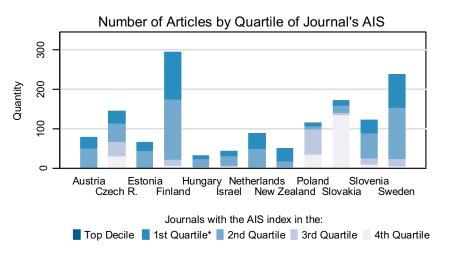


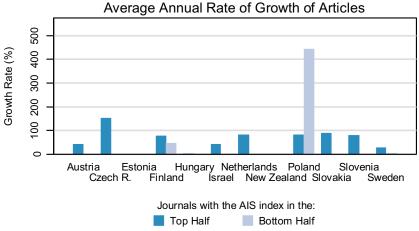


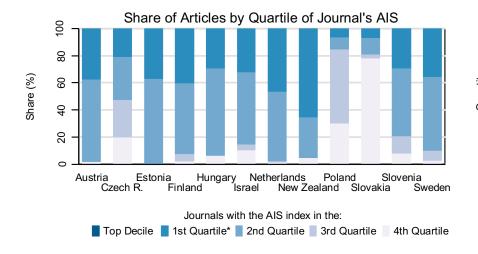
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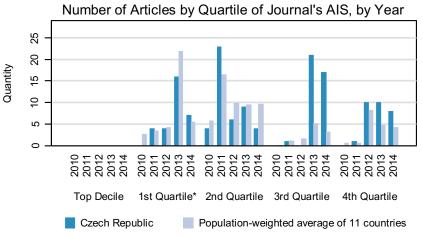
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MINING & MINERAL PROCESSING





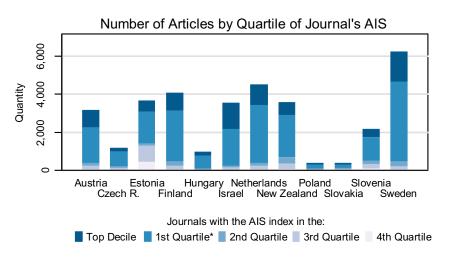


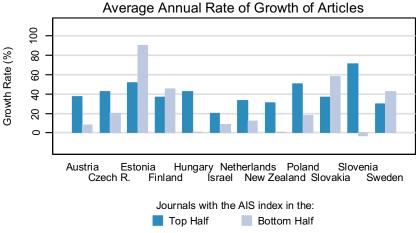


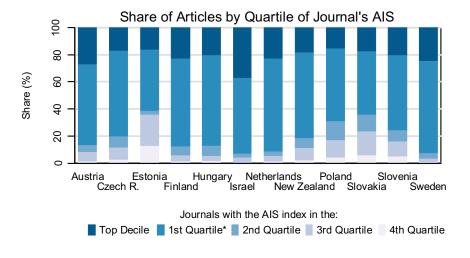
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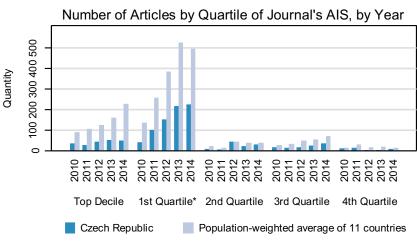
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MULTIDISCIPLINARY SCIENCES





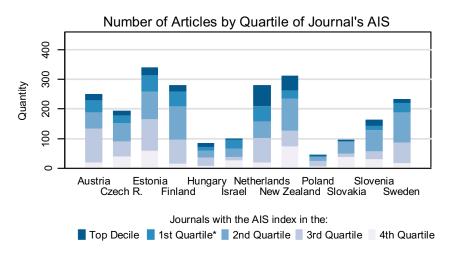


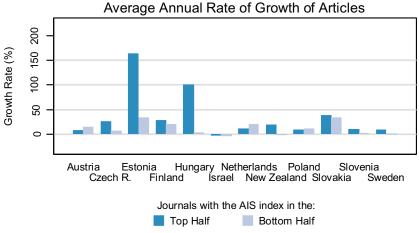


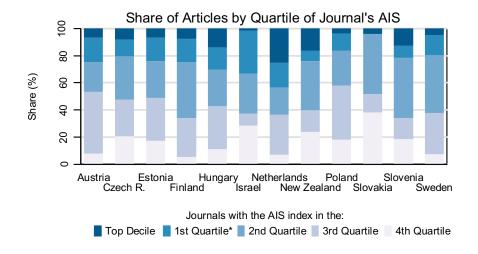
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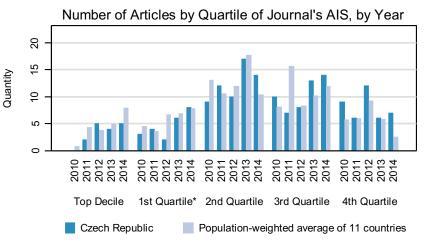
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MYCOLOGY





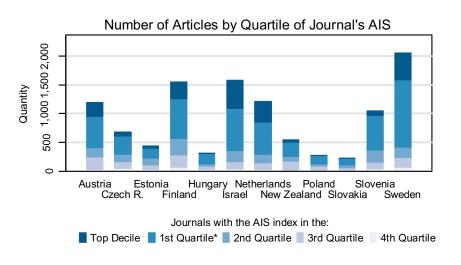


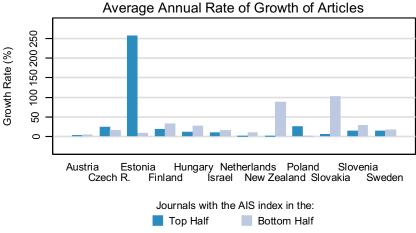


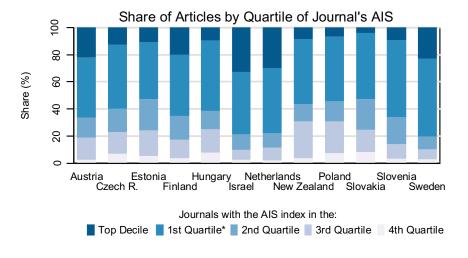
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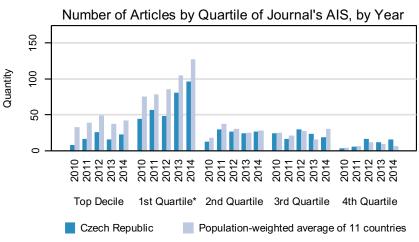
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NANOSCIENCE & NANOTECHNOLOGY





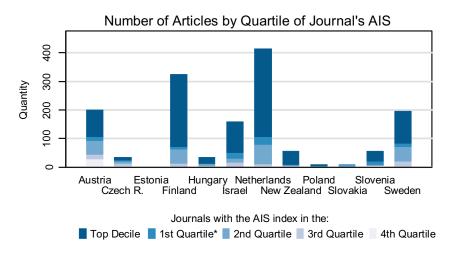


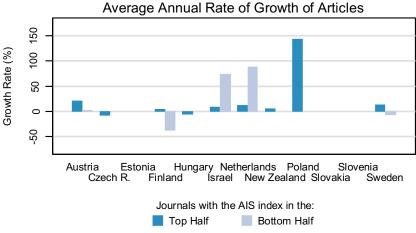


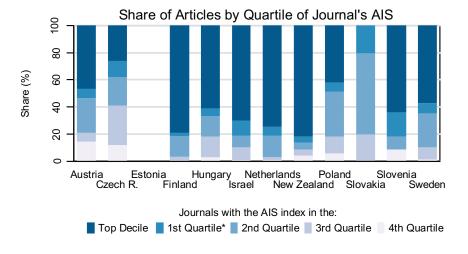
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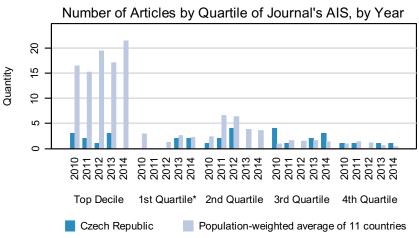
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NEUROIMAGING





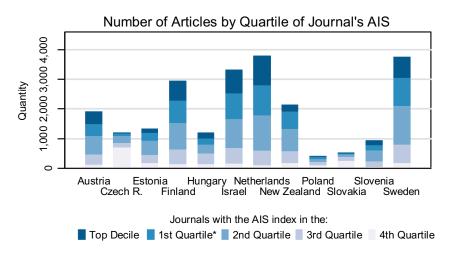


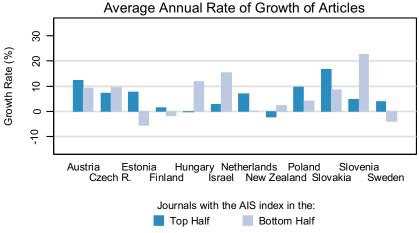


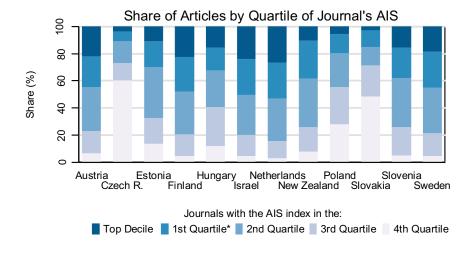
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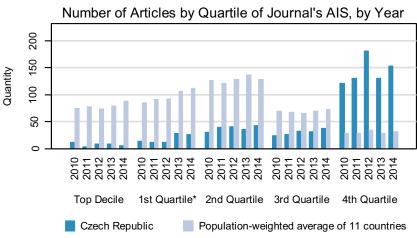
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NEUROSCIENCES





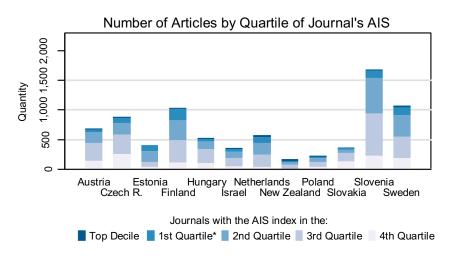


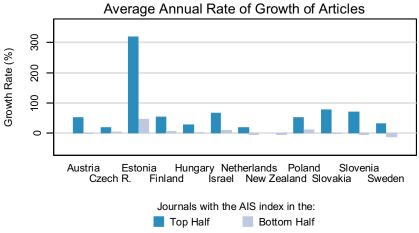


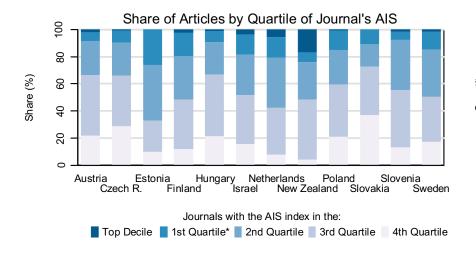
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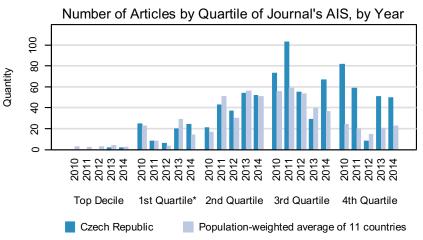
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NUCLEAR SCIENCE & TECHNOLOGY





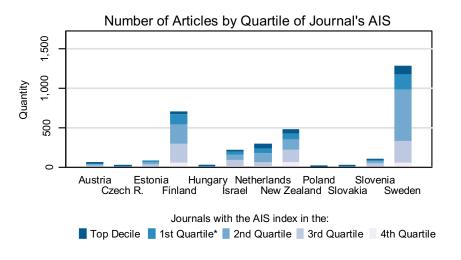


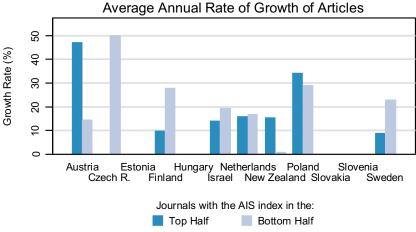


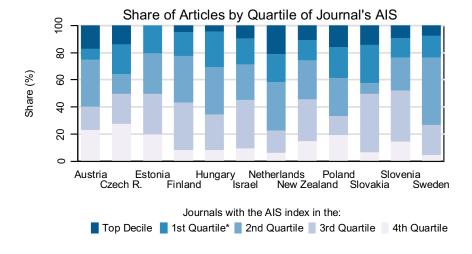
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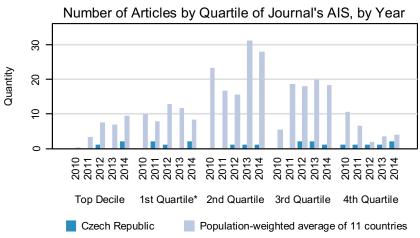
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NURSING





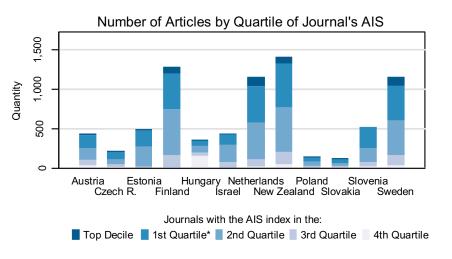


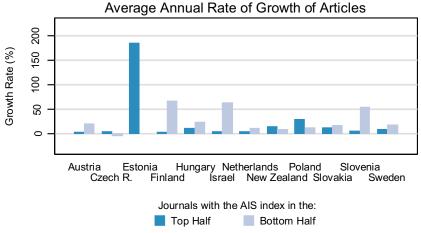


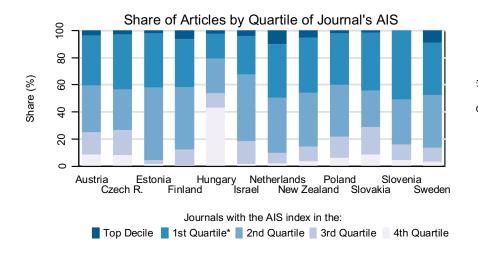
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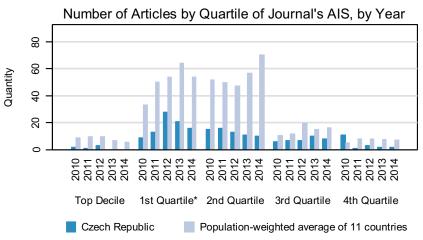
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NUTRITION & DIETETICS





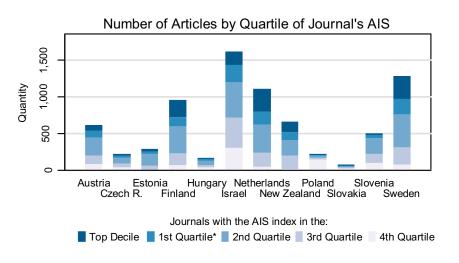


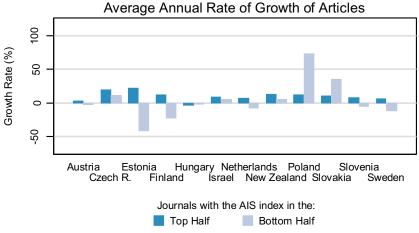


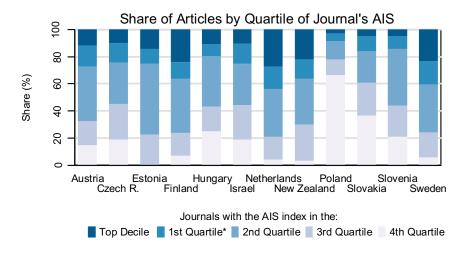
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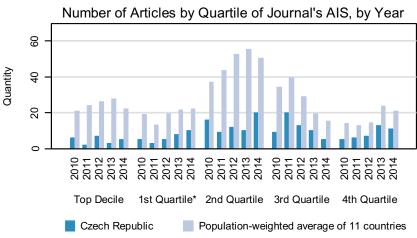
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OBSTETRICS & GYNECOLOGY





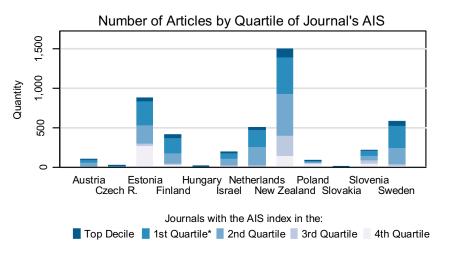


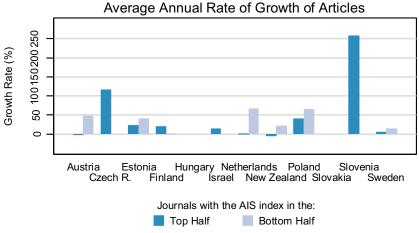


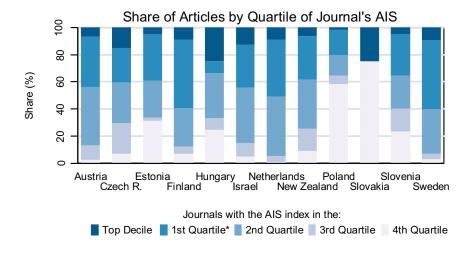
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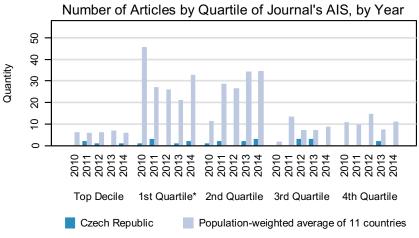
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OCEANOGRAPHY





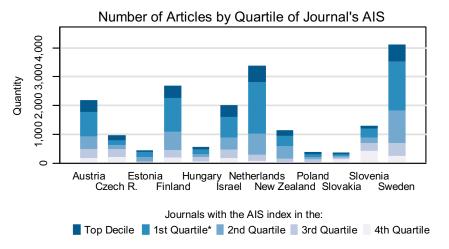


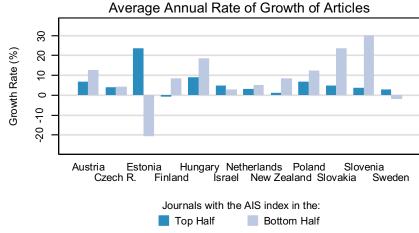


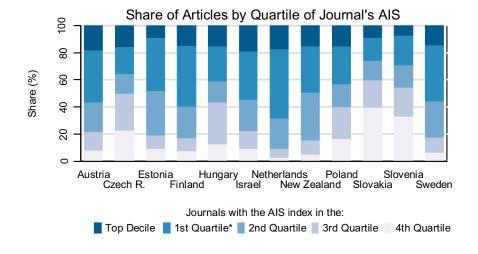
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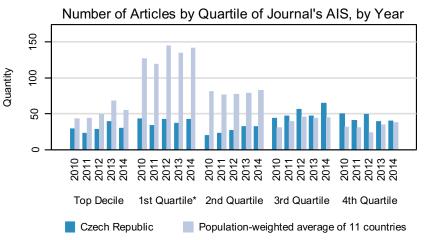
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ONCOLOGY





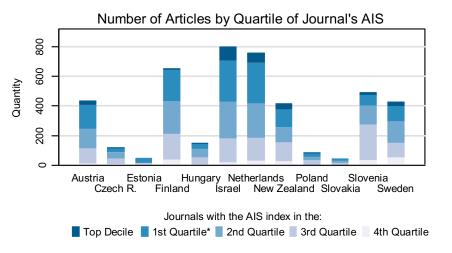


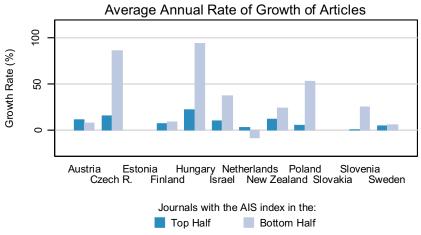


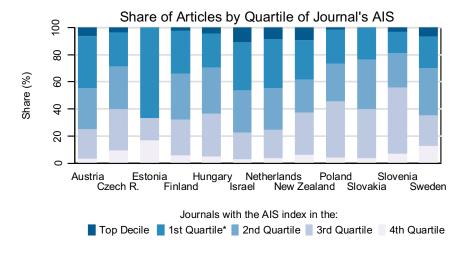
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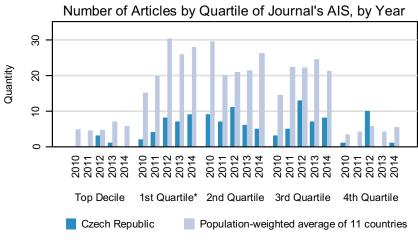
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OPERATIONS RESEARCH & MANAGEMENT SCIENCE





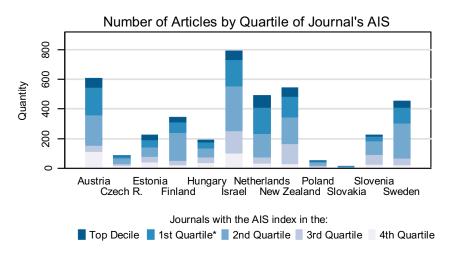


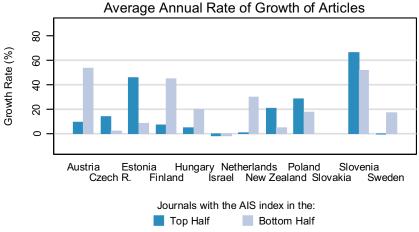


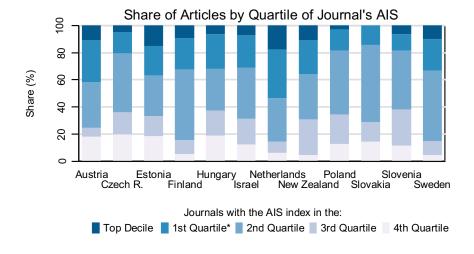
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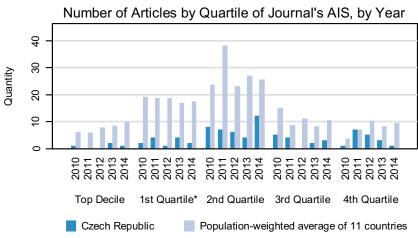
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OPHTHALMOLOGY





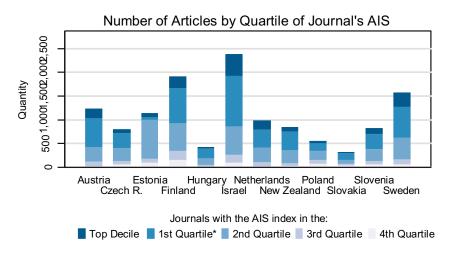


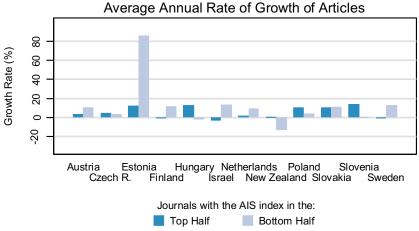


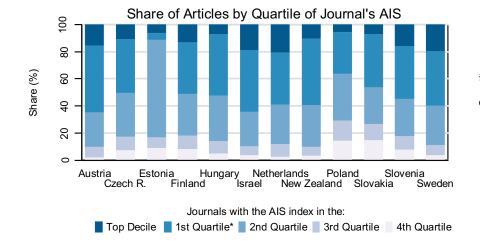
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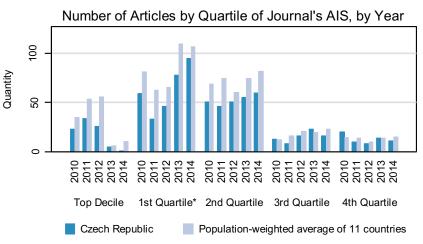
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OPTICS





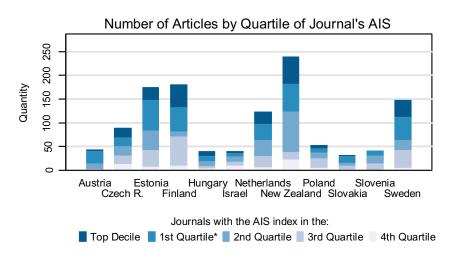


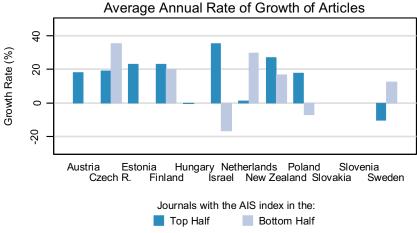


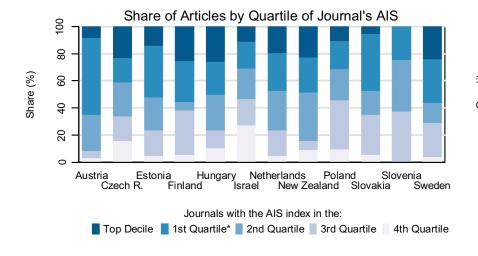
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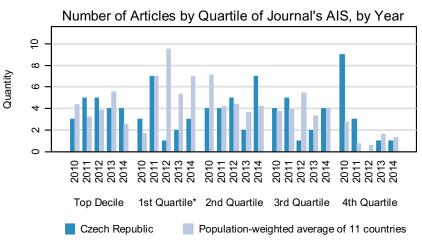
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ORNITHOLOGY





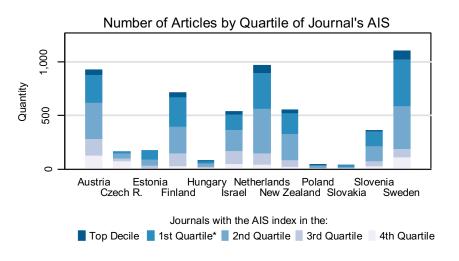


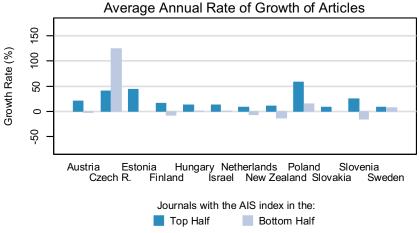


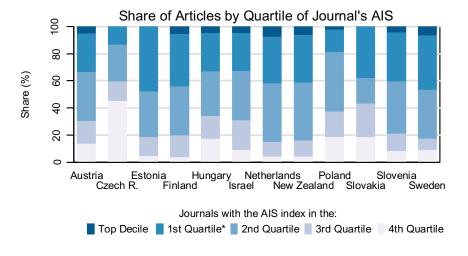
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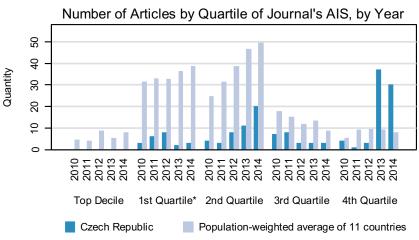
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ORTHOPEDICS





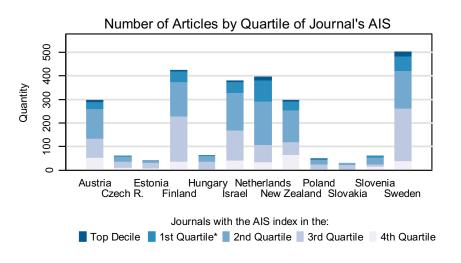


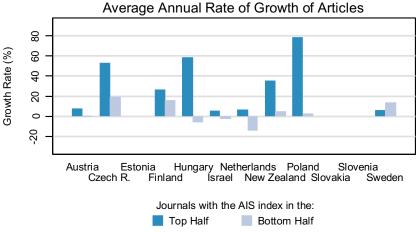


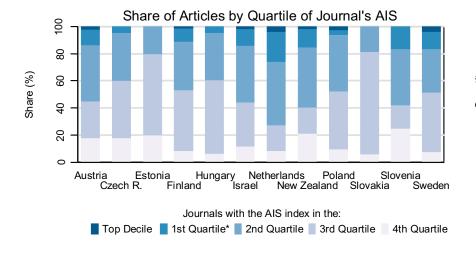
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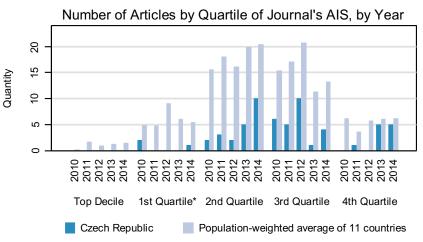
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OTORHINOLARYNGOLOGY





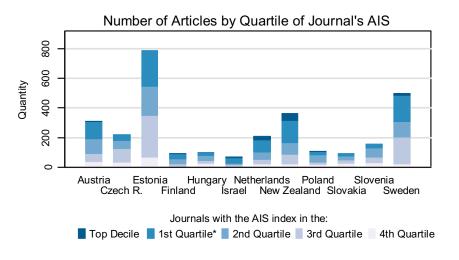


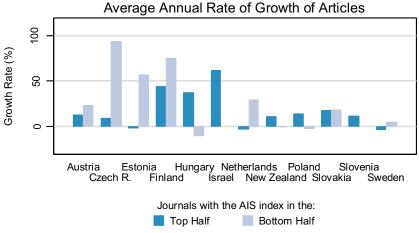


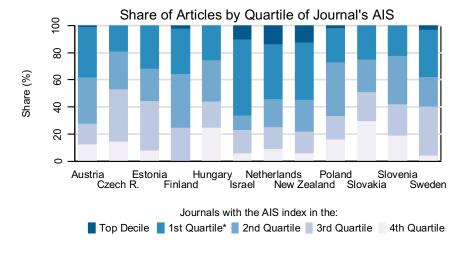
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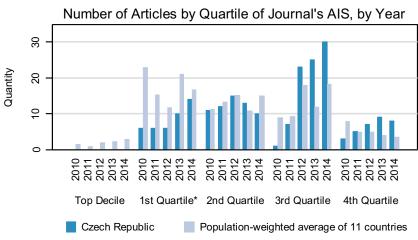
* 1st Quartile excludes the Top Decile

PALEONTOLOGY





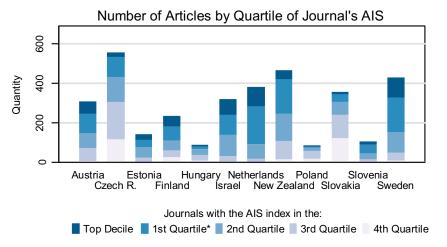


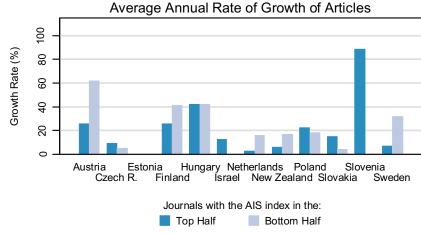


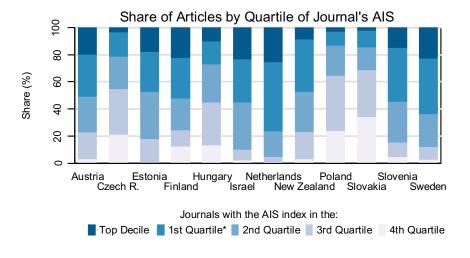
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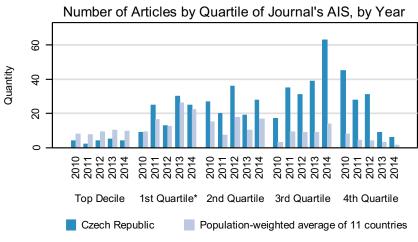
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PARASITOLOGY





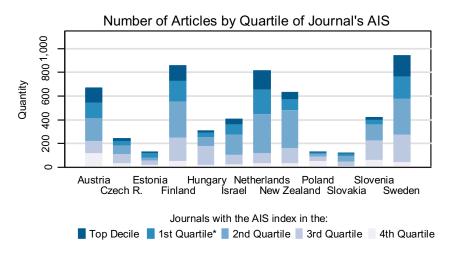


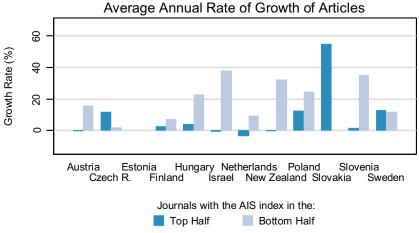


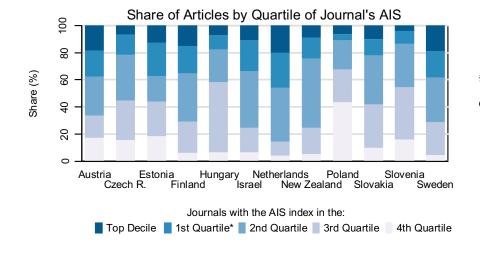
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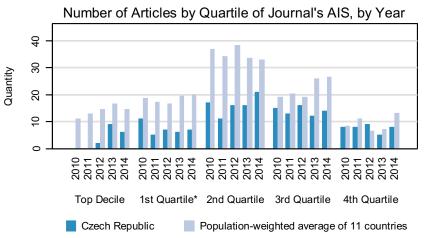
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PATHOLOGY





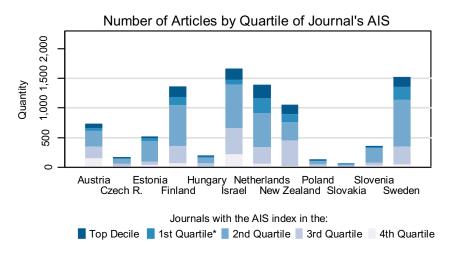


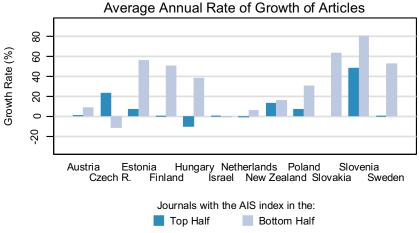


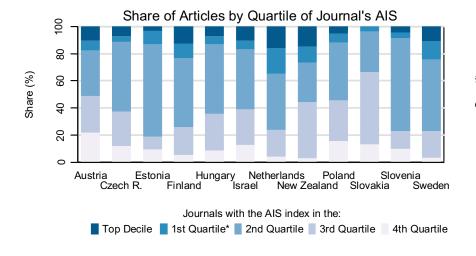
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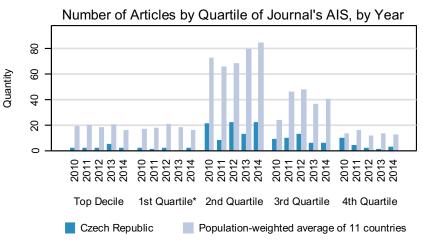
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PEDIATRICS





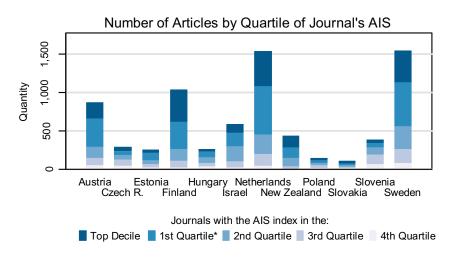


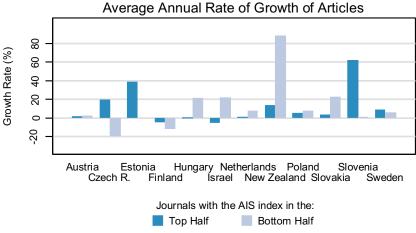


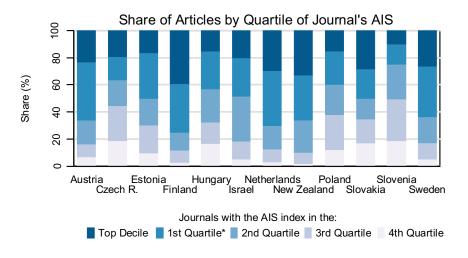
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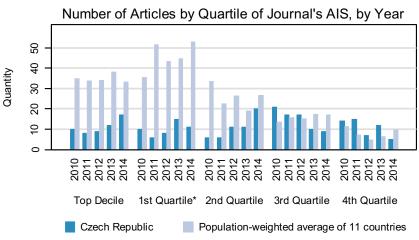
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PERIPHERAL VASCULAR DISEASE





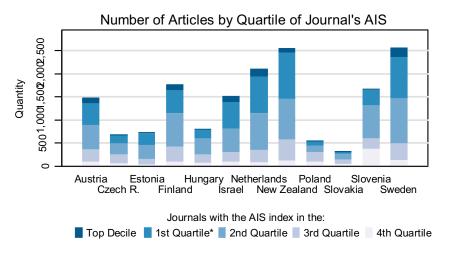


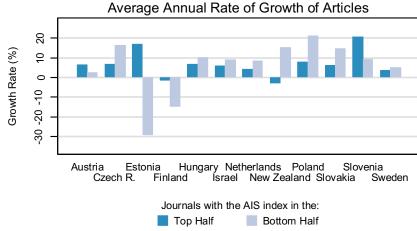


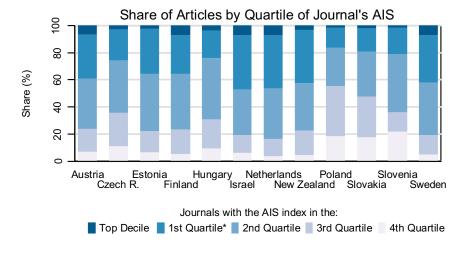
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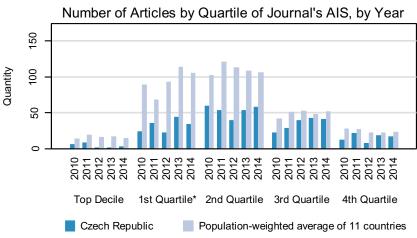
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PHARMACOLOGY & PHARMACY





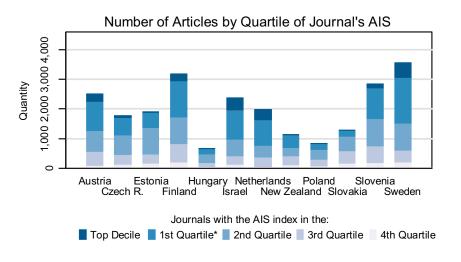


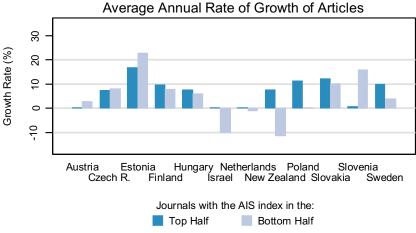


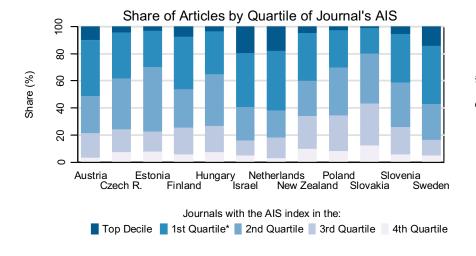
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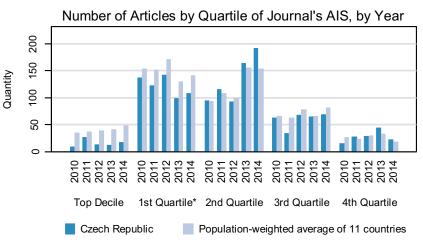
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PHYSICS, APPLIED





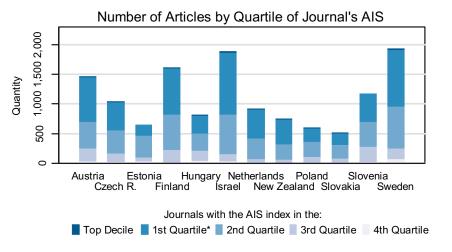


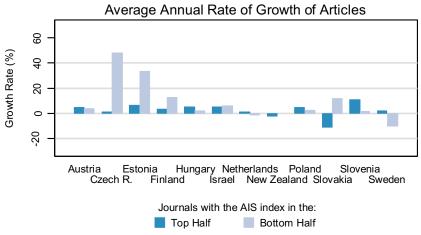


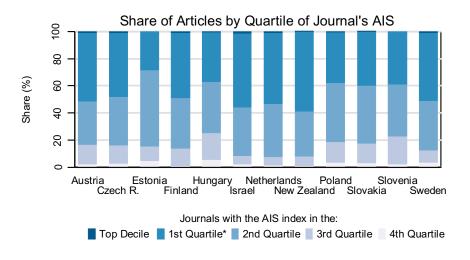
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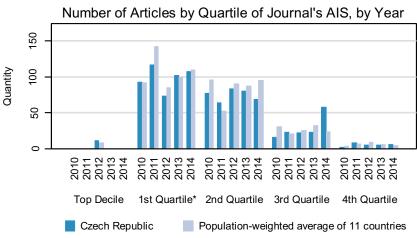
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PHYSICS, ATOMIC, MOLECULAR & CHEMICAL





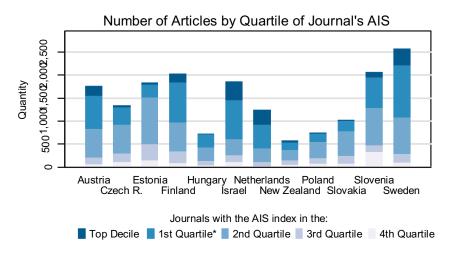


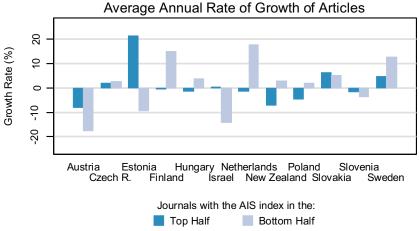


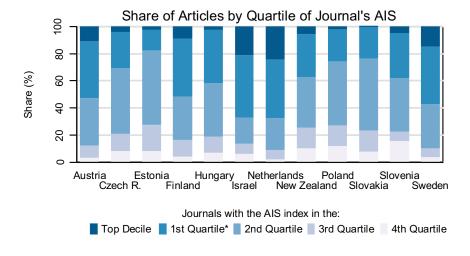
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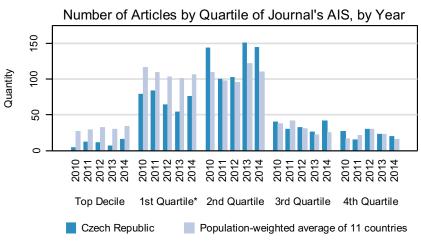
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PHYSICS, CONDENSED MATTER





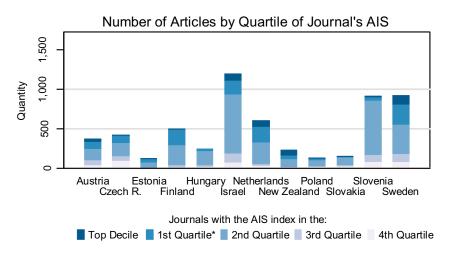


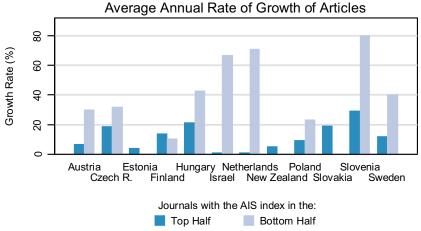


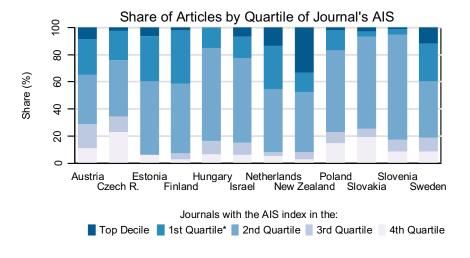
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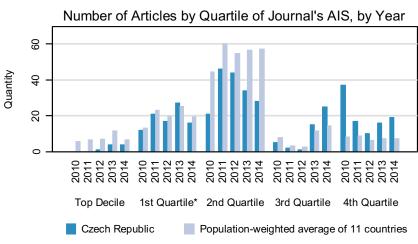
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PHYSICS, FLUIDS & PLASMAS





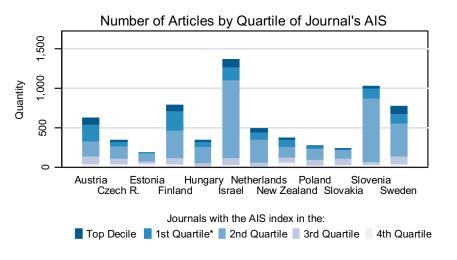


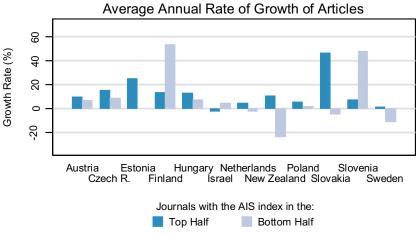


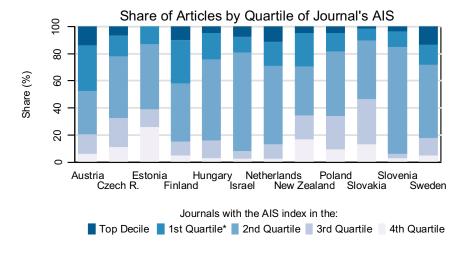
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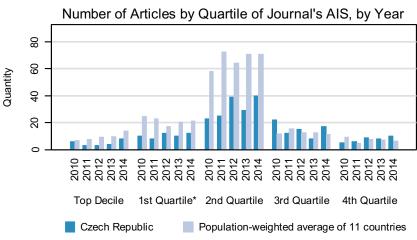
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PHYSICS, MATHEMATICAL





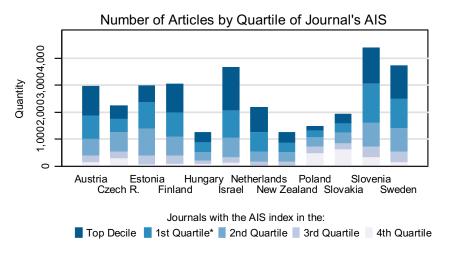


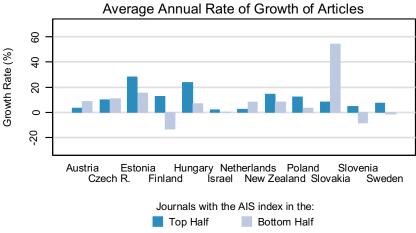


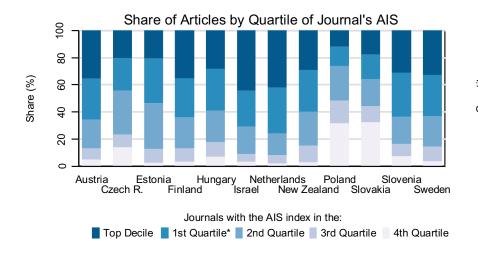
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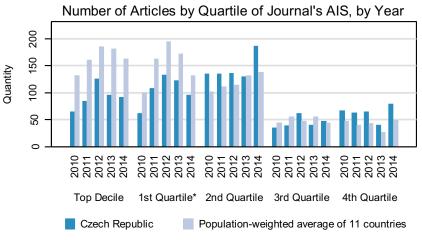
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PHYSICS, MULTIDISCIPLINARY





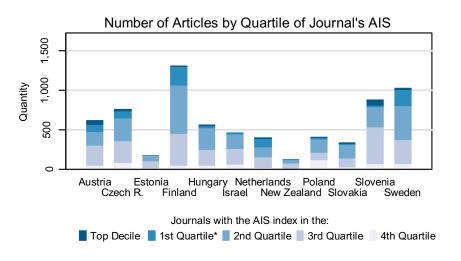


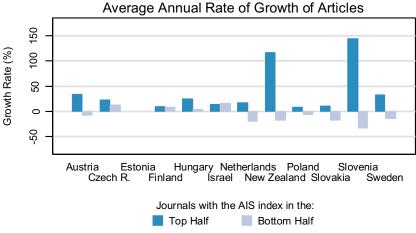


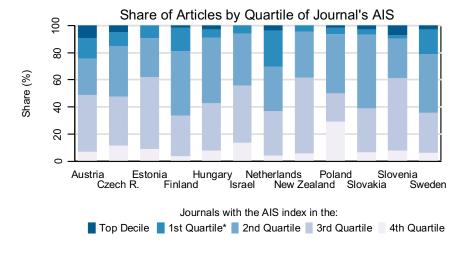
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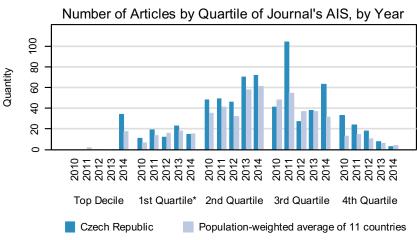
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PHYSICS, NUCLEAR





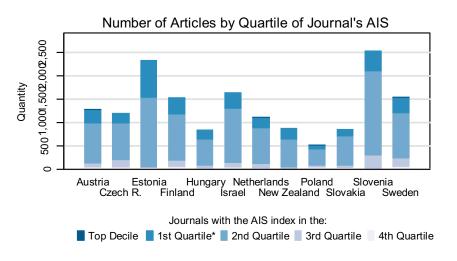


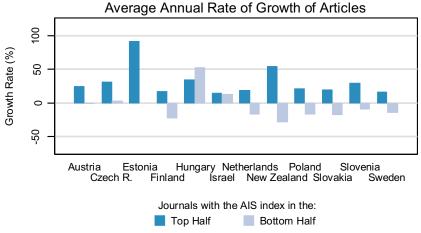


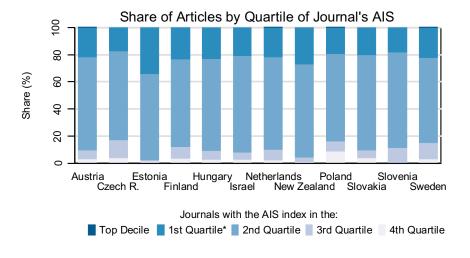
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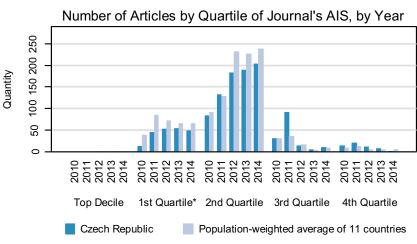
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PHYSICS, PARTICLES & FIELDS





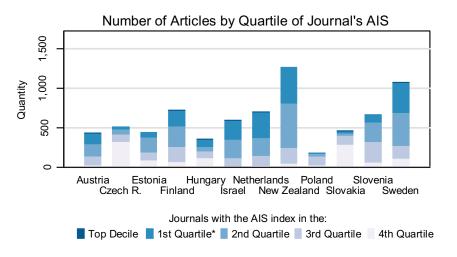


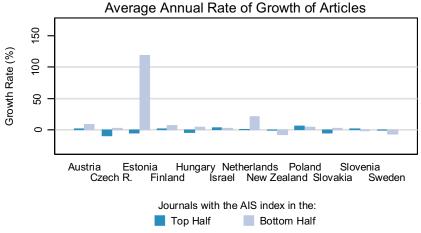


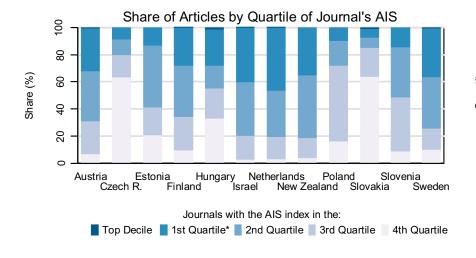
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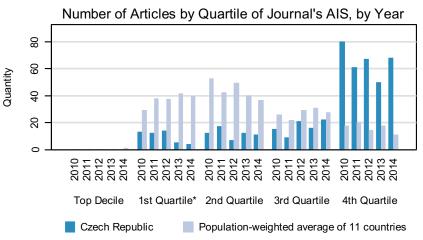
* 1st Quartile excludes the Top Decile

PHYSIOLOGY





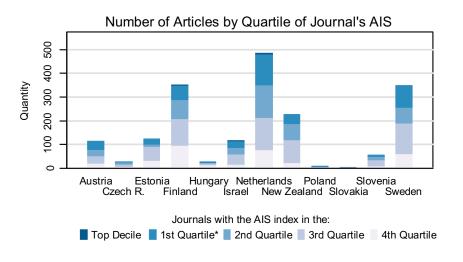


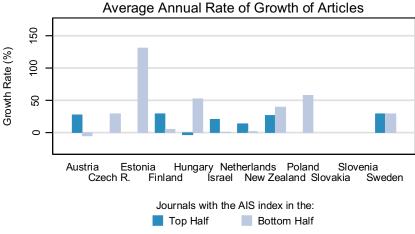


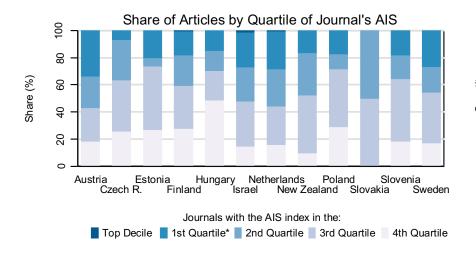
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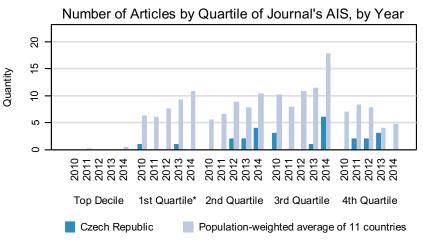
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PLANNING & DEVELOPMENT





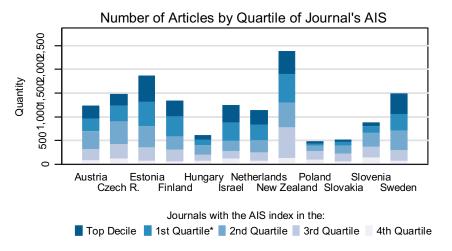


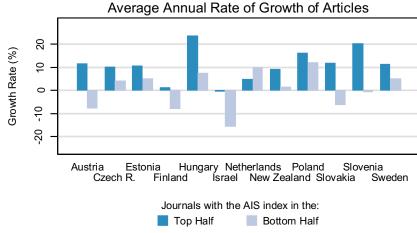


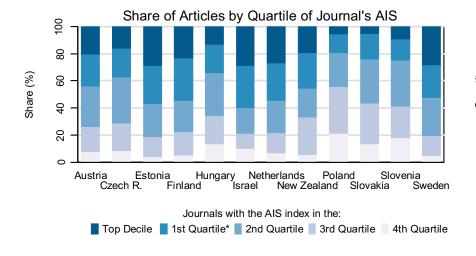
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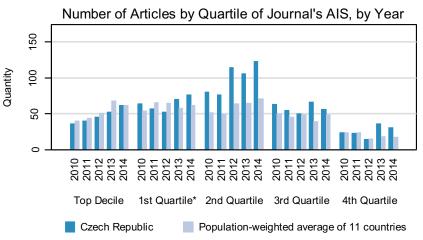
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PLANT SCIENCES





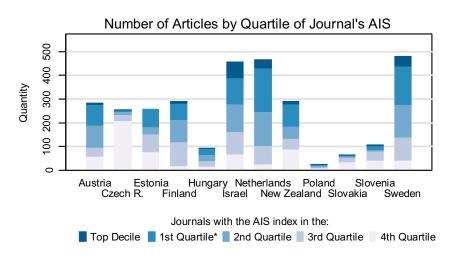


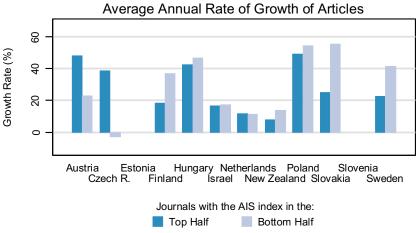


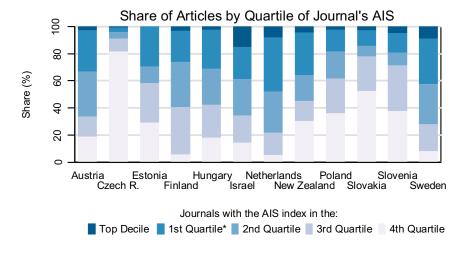
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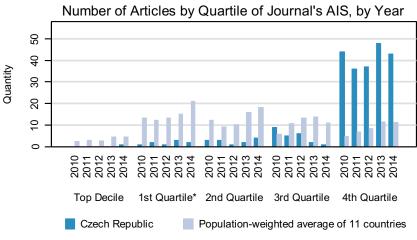
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POLITICAL SCIENCE





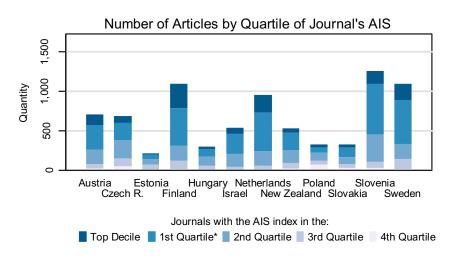


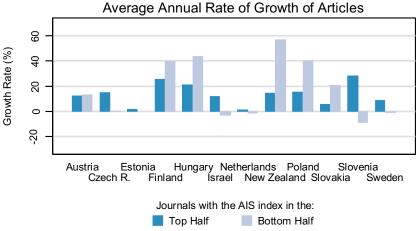


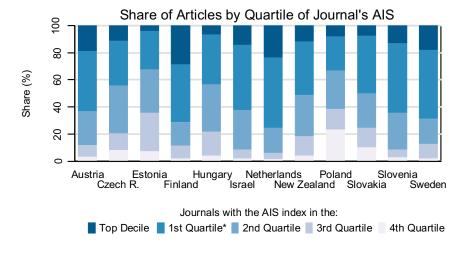
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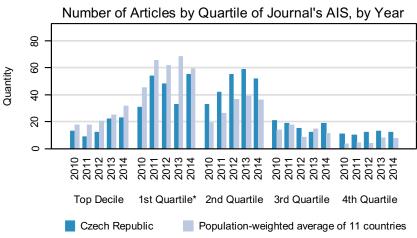
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POLYMER SCIENCE





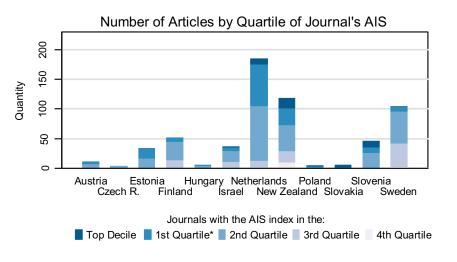


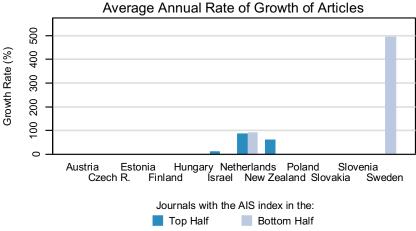


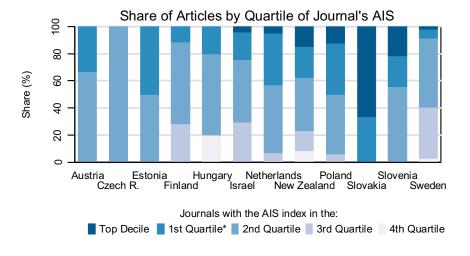
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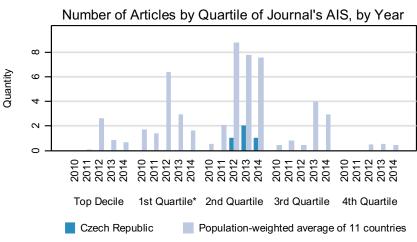
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PRIMARY HEALTH CARE





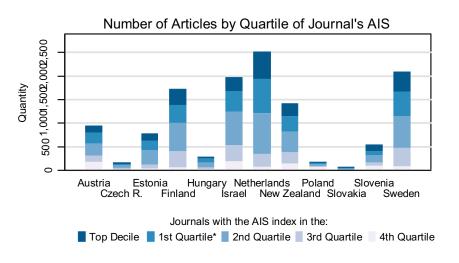


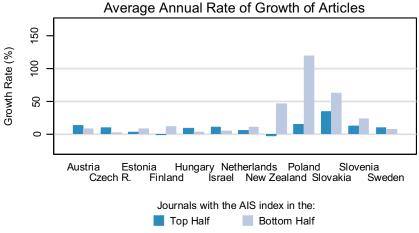


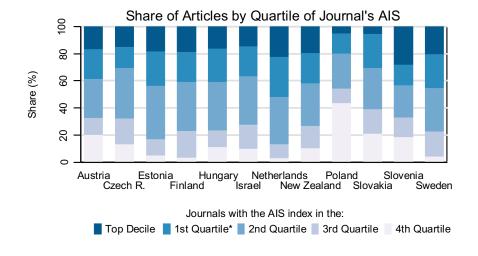
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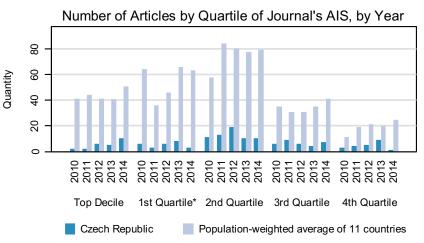
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PSYCHIATRY





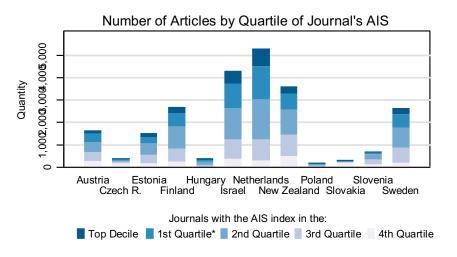


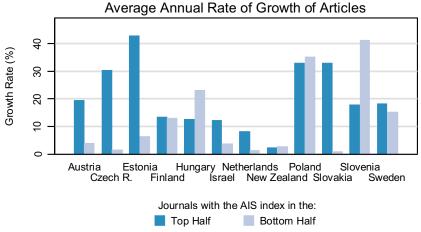


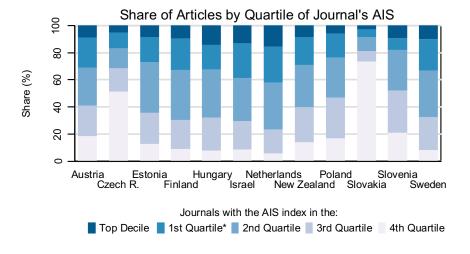
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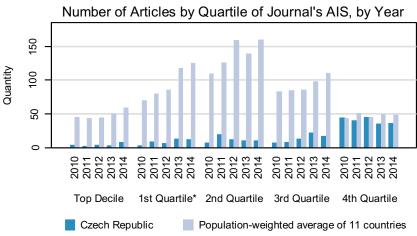
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PSYCHOLOGY





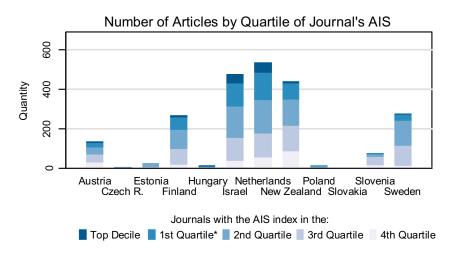


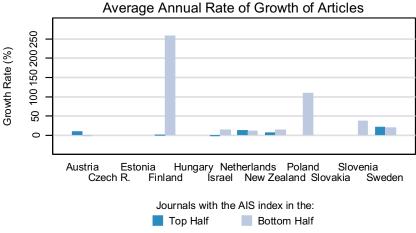


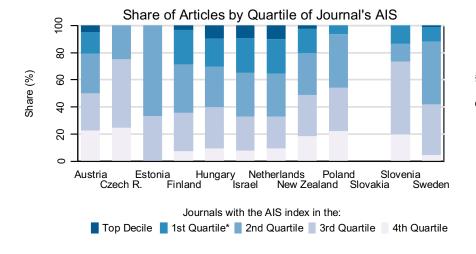
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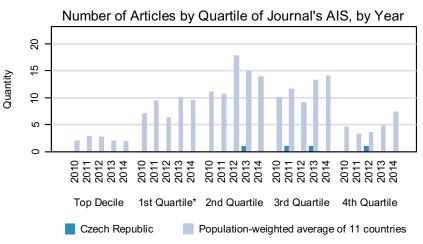
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PSYCHOLOGY, APPLIED





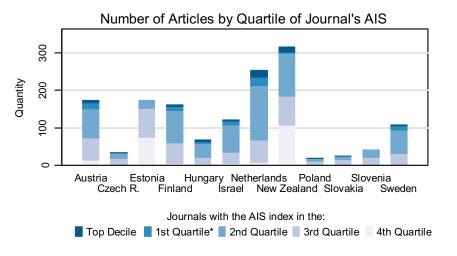


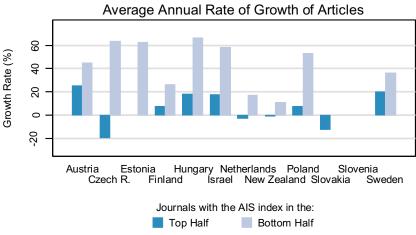


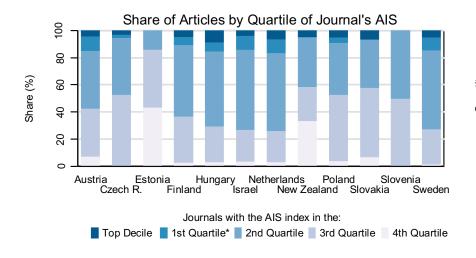
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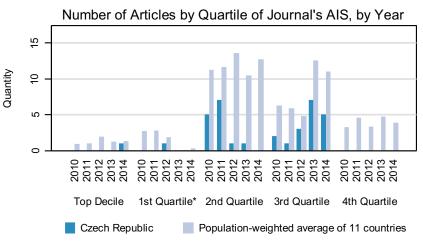
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PSYCHOLOGY, BIOLOGICAL





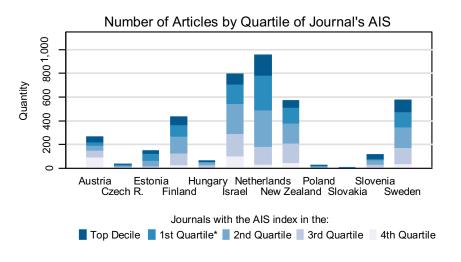


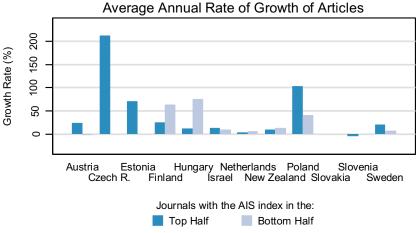


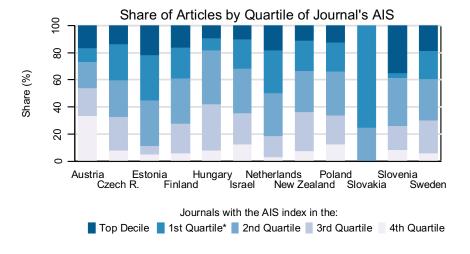
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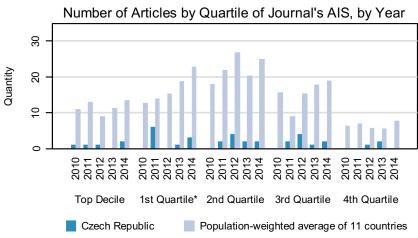
* 1st Quartile excludes the Top Decile

PSYCHOLOGY, CLINICAL





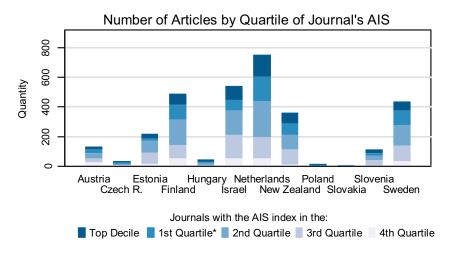


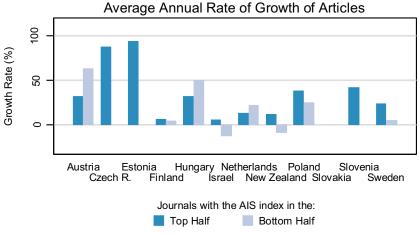


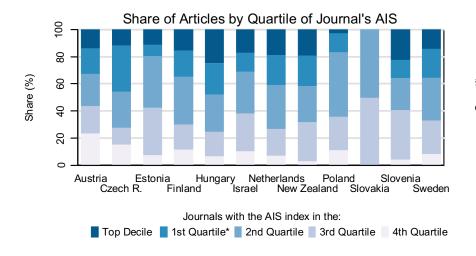
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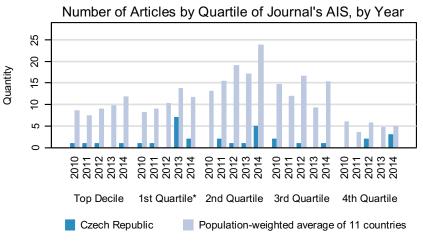
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PSYCHOLOGY, DEVELOPMENTAL





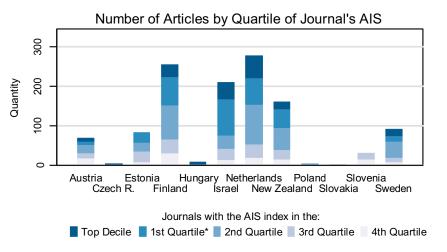


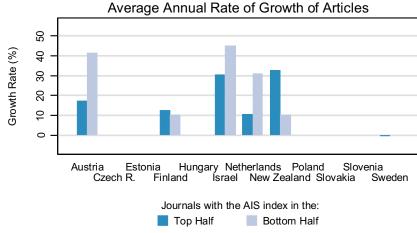


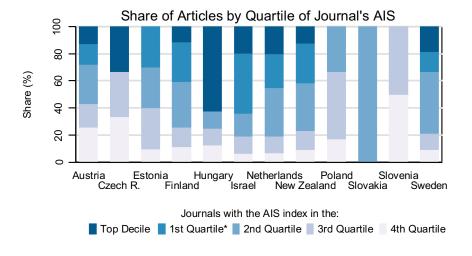
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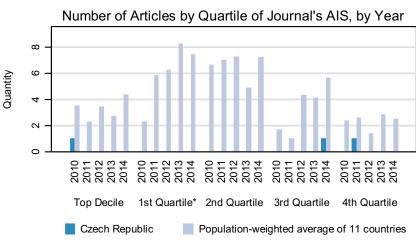
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PSYCHOLOGY, EDUCATIONAL





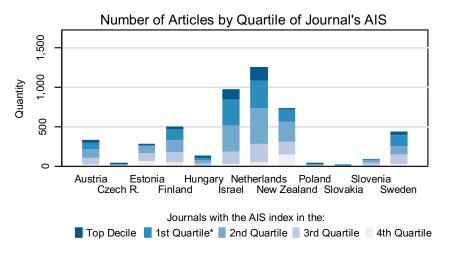


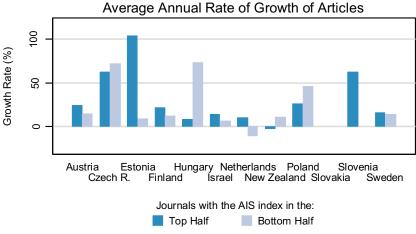


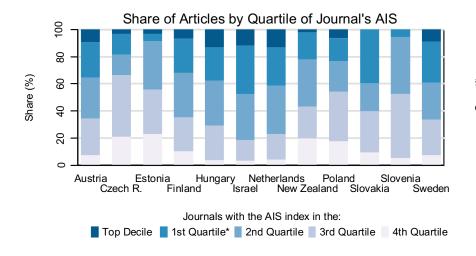
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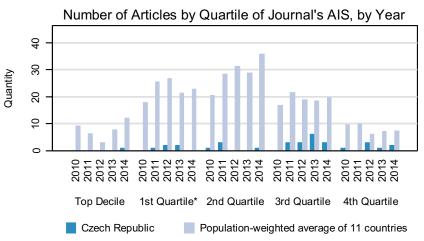
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PSYCHOLOGY, EXPERIMENTAL





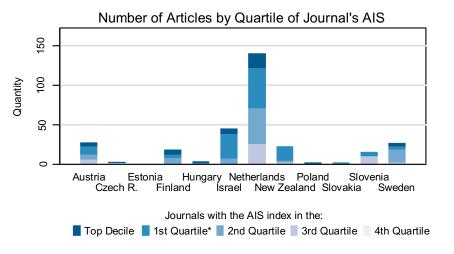


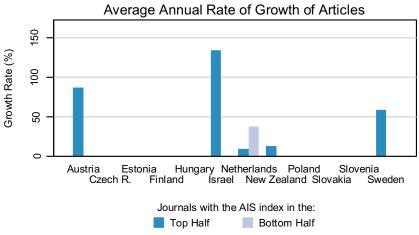


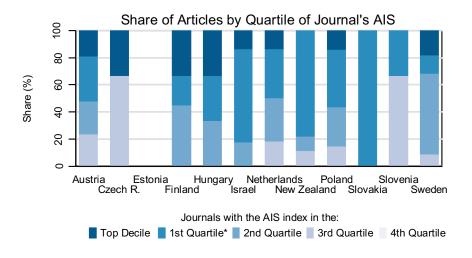
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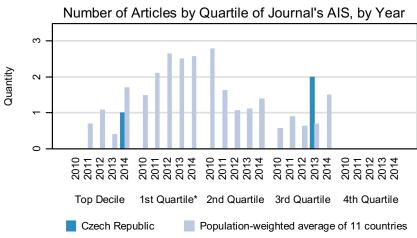
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PSYCHOLOGY, MATHEMATICAL





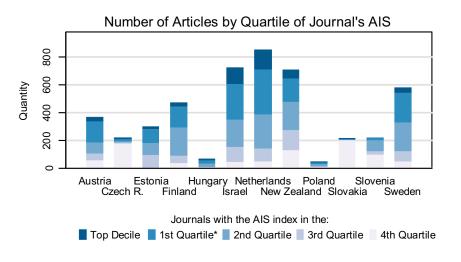


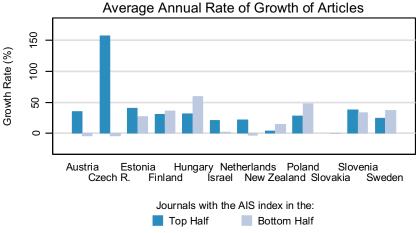


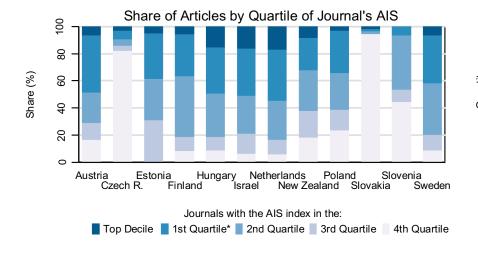
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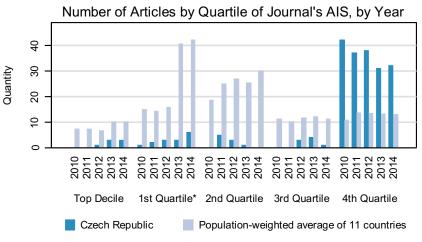
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PSYCHOLOGY, MULTIDISCIPLINARY





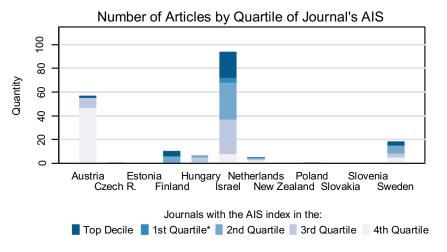


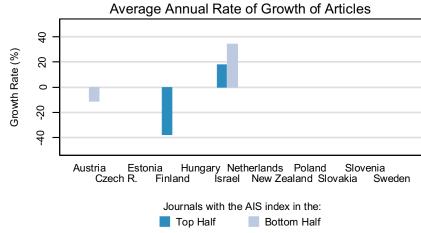


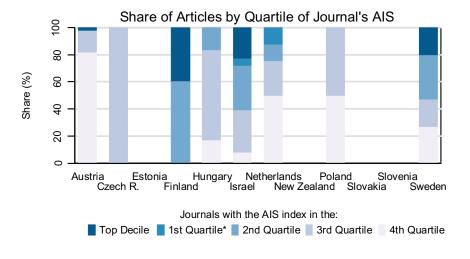
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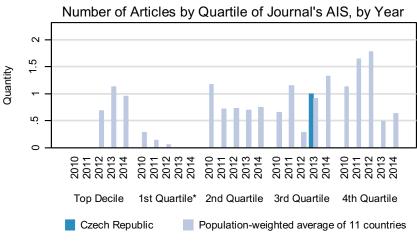
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PSYCHOLOGY, PSYCHOANALYSIS





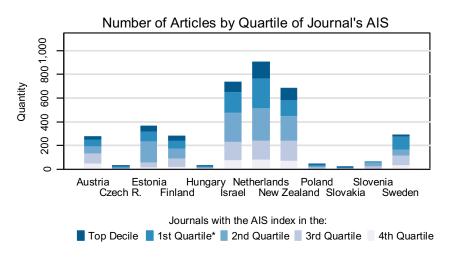


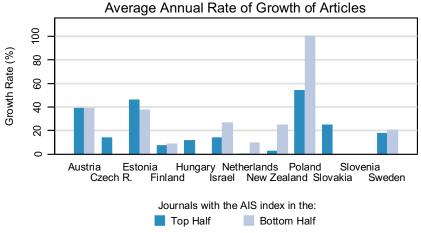


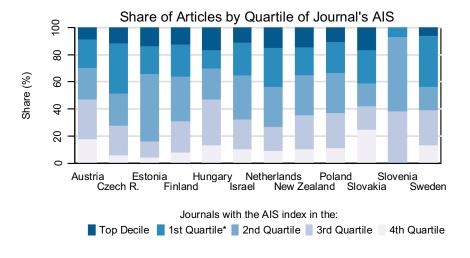
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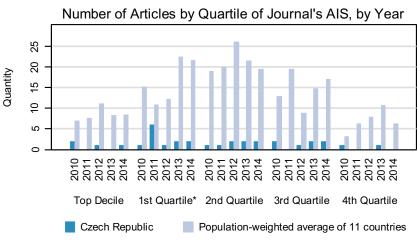
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PSYCHOLOGY, SOCIAL





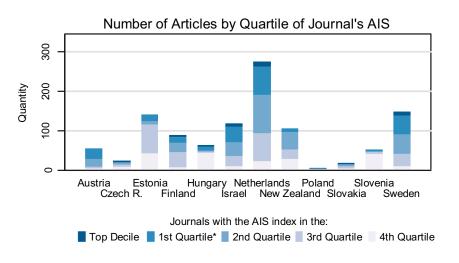


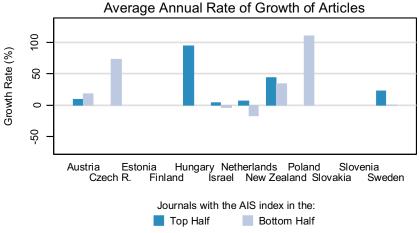


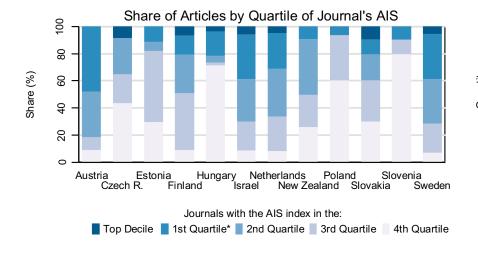
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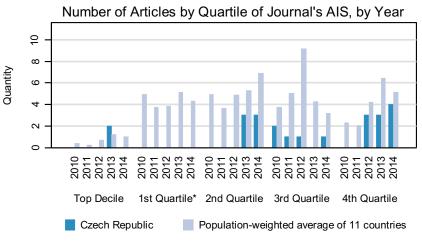
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PUBLIC ADMINISTRATION





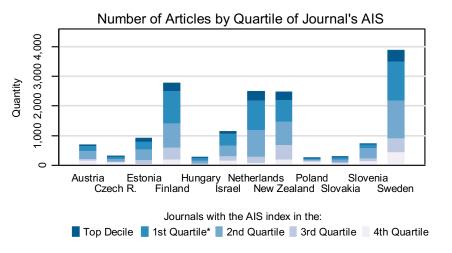


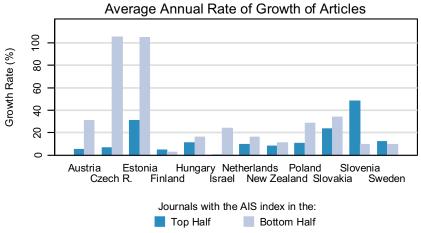


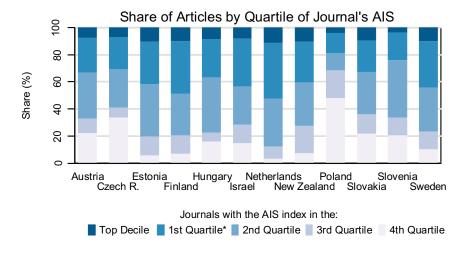
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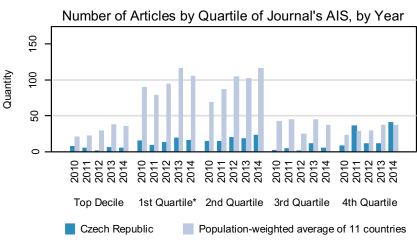
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PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH





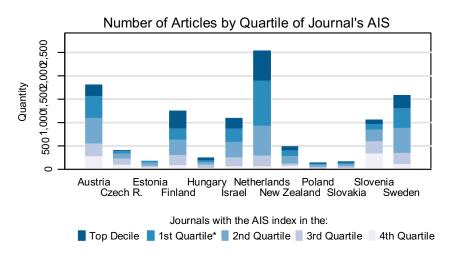


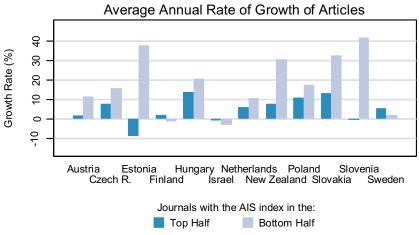


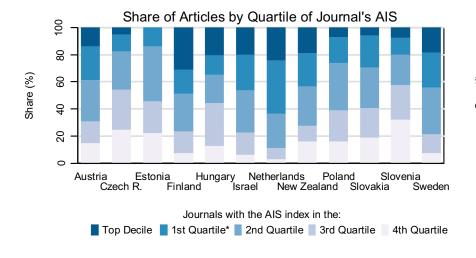
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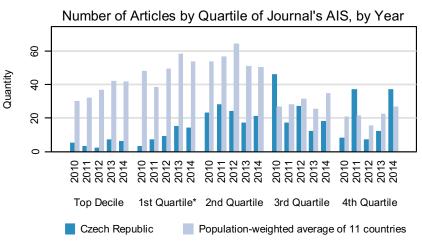
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RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING





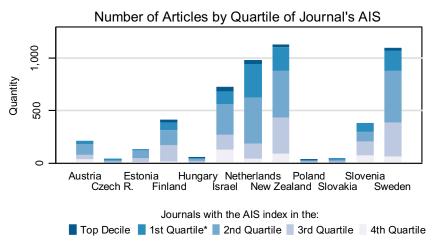


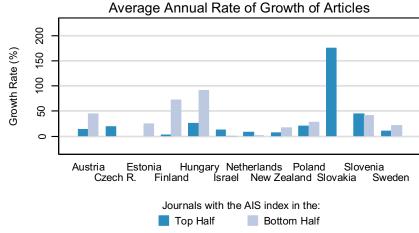


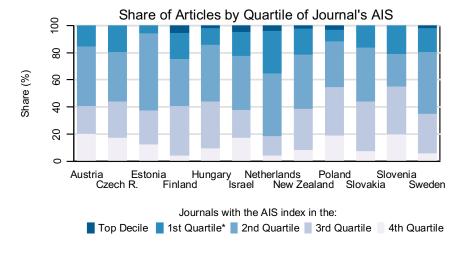
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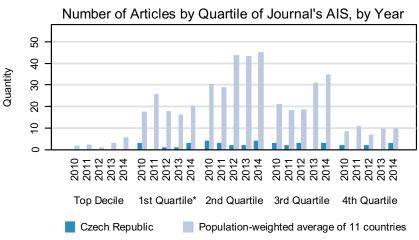
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REHABILITATION





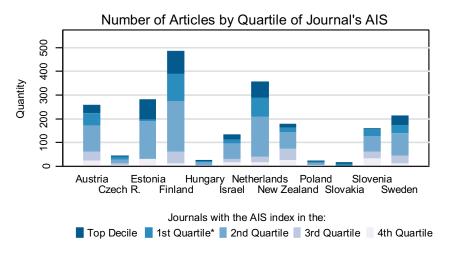


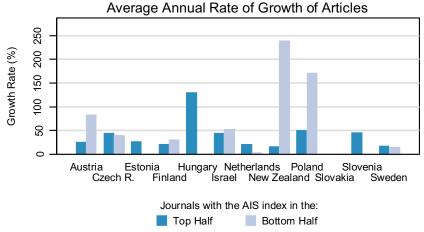


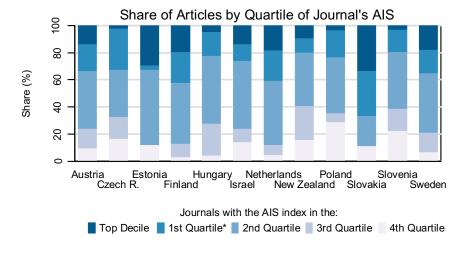
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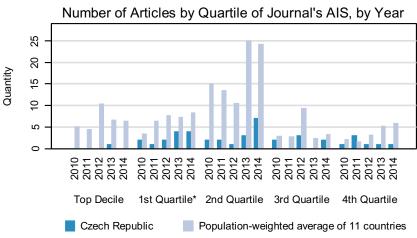
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REMOTE SENSING





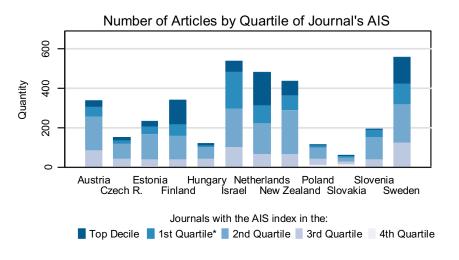


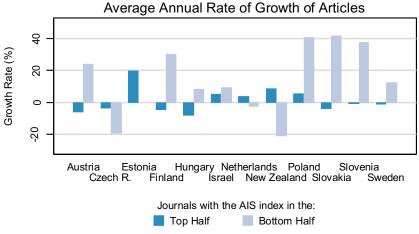


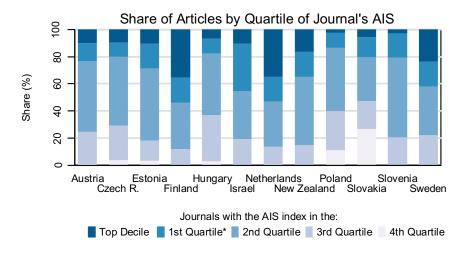
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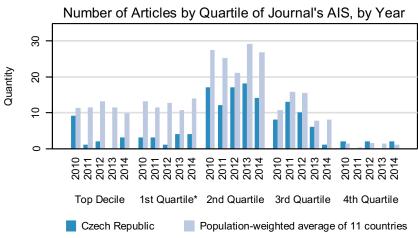
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REPRODUCTIVE BIOLOGY





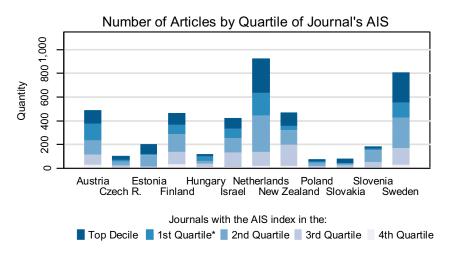


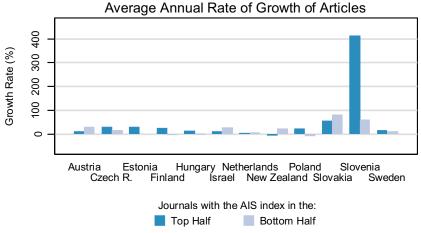


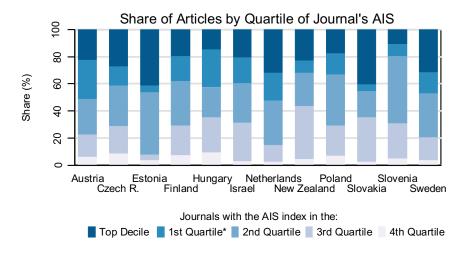
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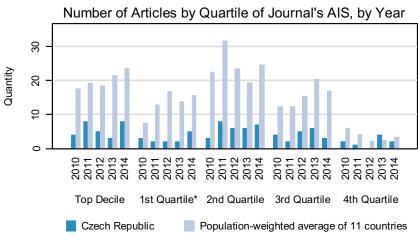
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RESPIRATORY SYSTEM





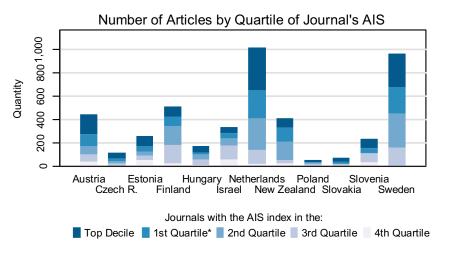


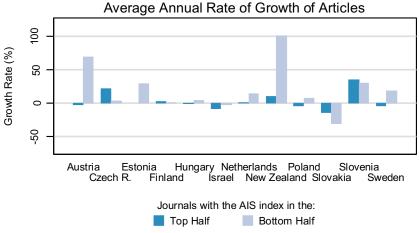


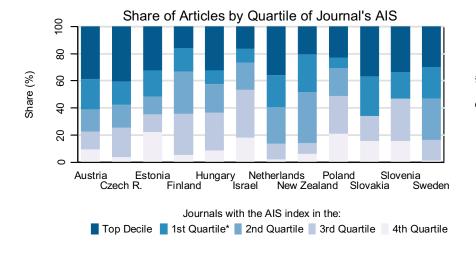
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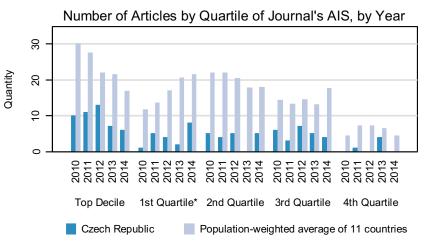
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RHEUMATOLOGY





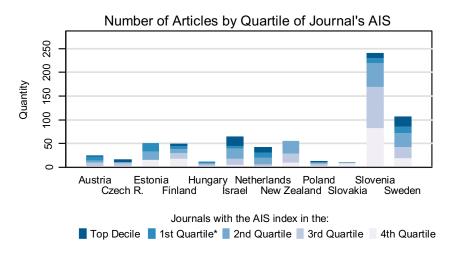


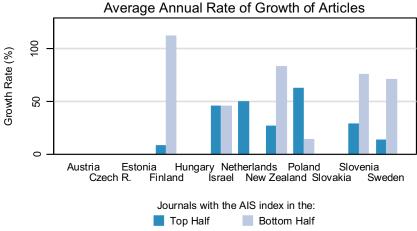


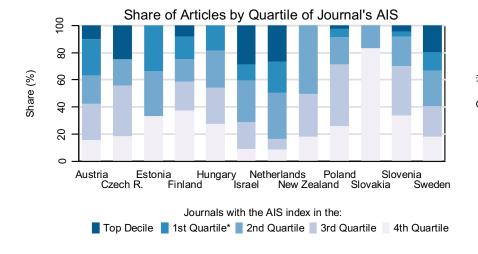
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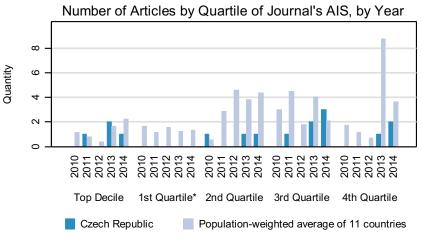
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ROBOTICS





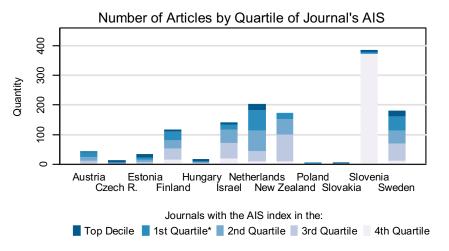


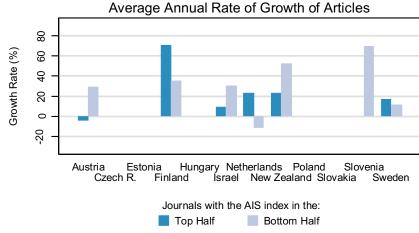


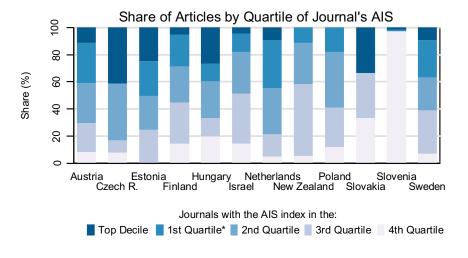
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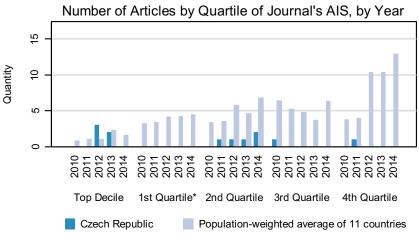
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SOCIAL ISSUES





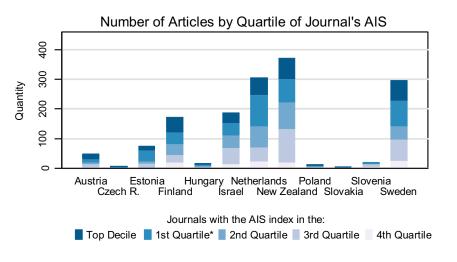


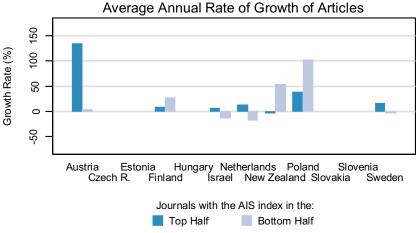


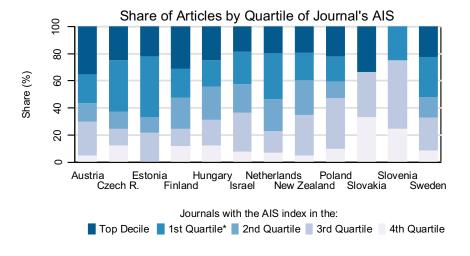
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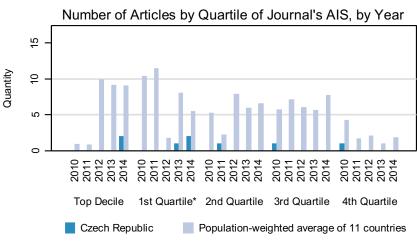
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SOCIAL SCIENCES, BIOMEDICAL





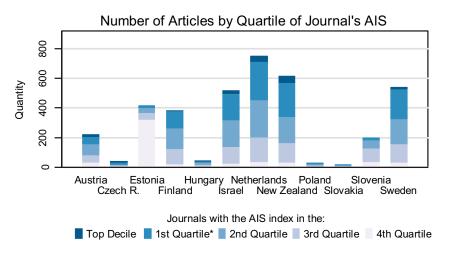


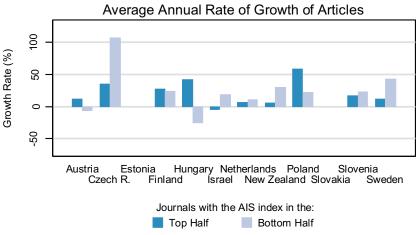


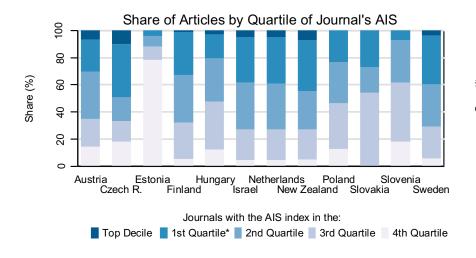
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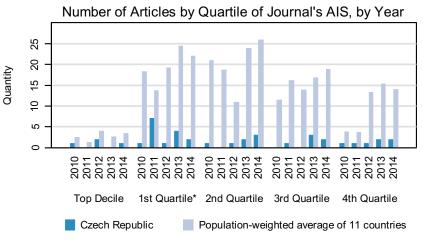
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SOCIAL SCIENCES, INTERDISCIPLINARY





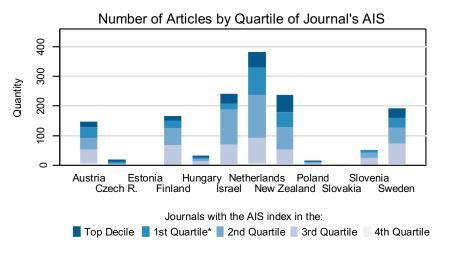


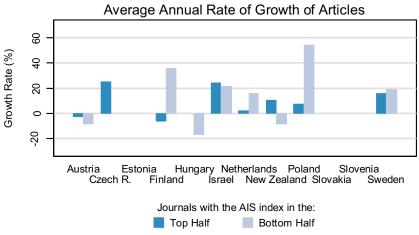


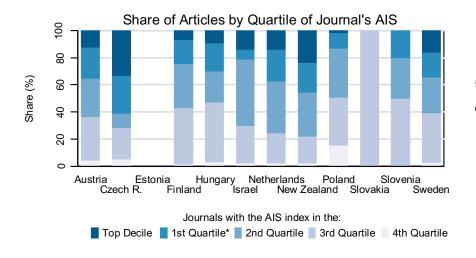
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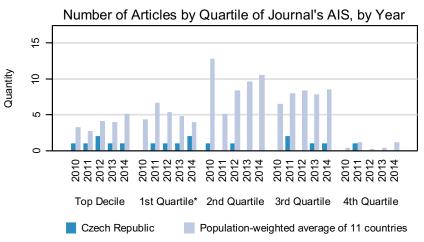
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SOCIAL SCIENCES, MATHEMATICAL METHODS





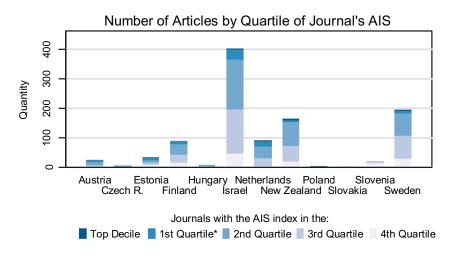


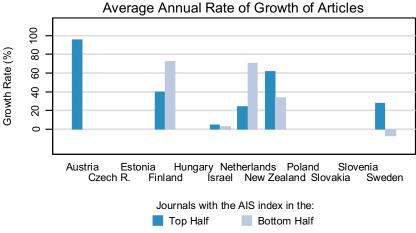


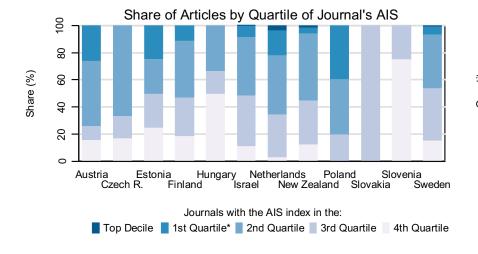
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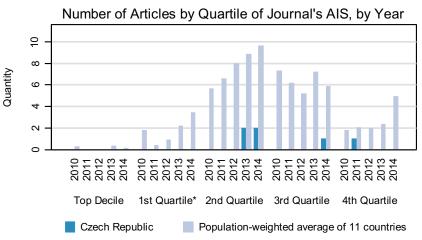
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SOCIAL WORK





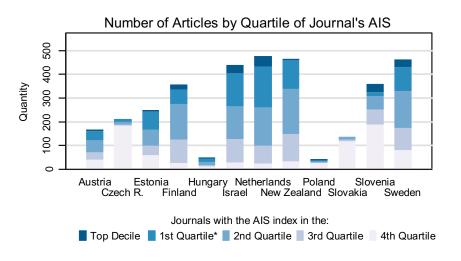


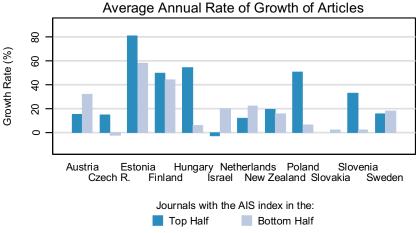


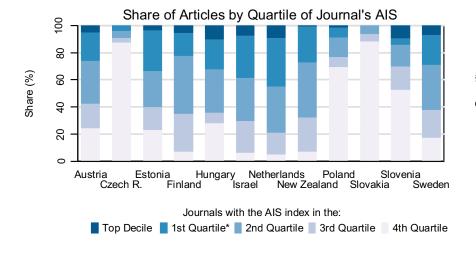
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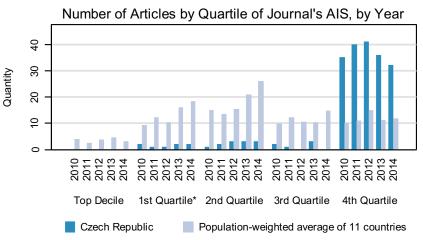
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SOCIOLOGY





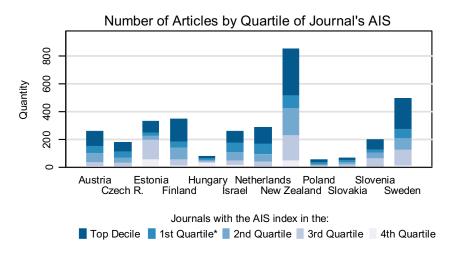


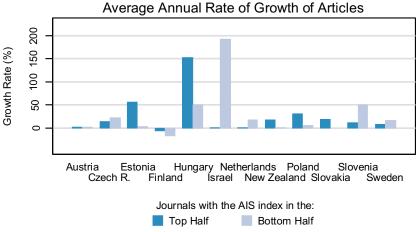


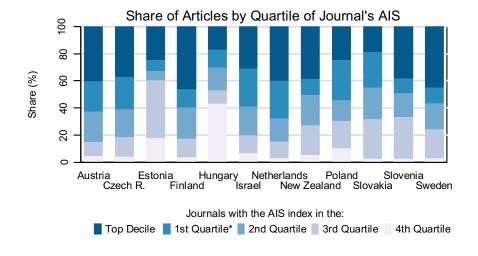
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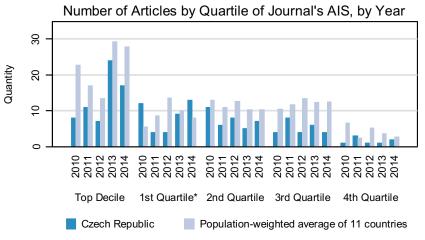
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SOIL SCIENCE





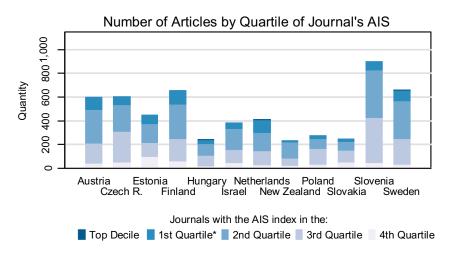


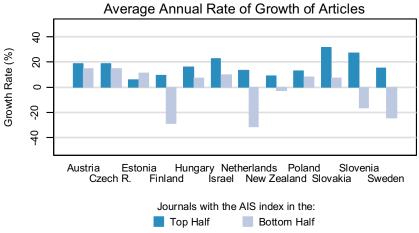


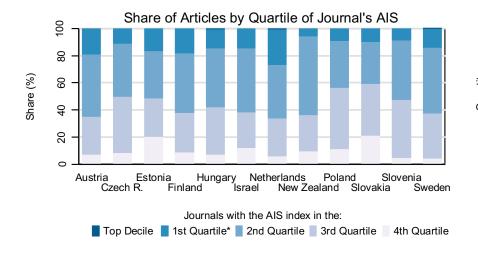
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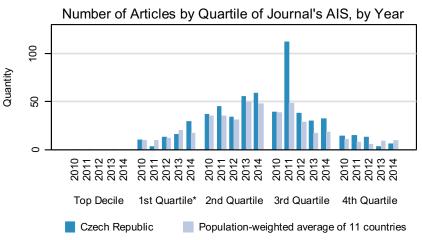
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SPECTROSCOPY





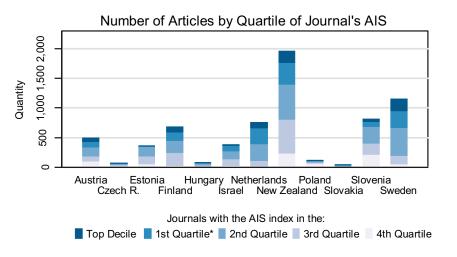


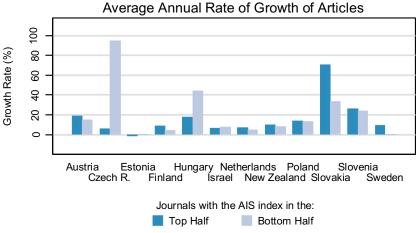


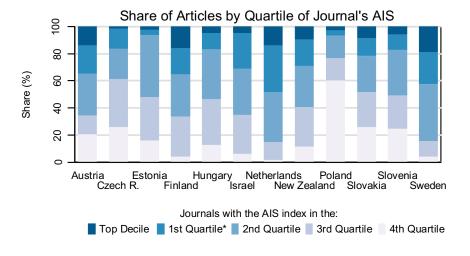
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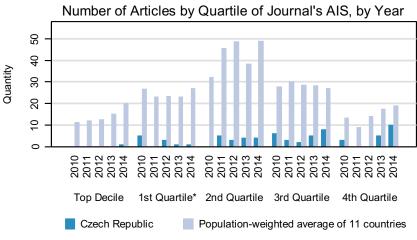
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SPORT SCIENCES





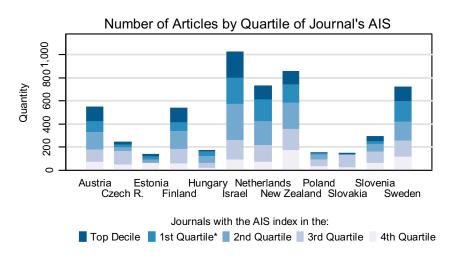


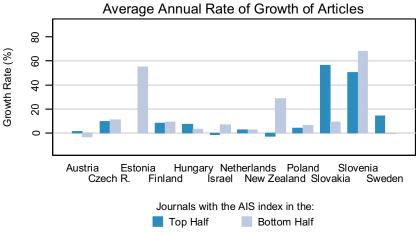


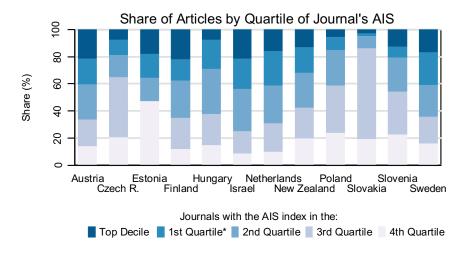
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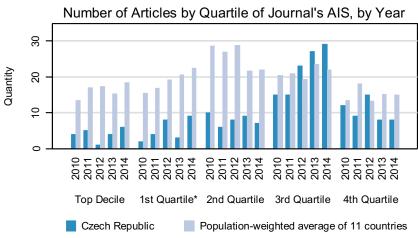
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STATISTICS & PROBABILITY





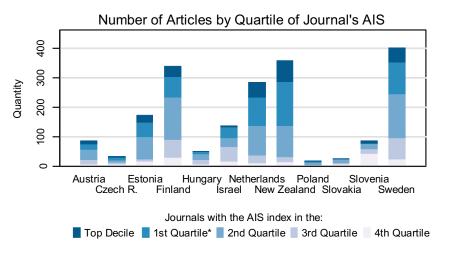


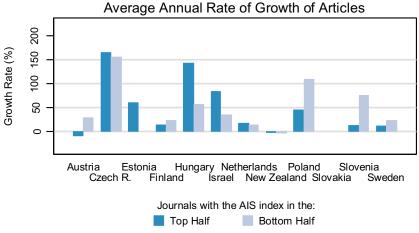


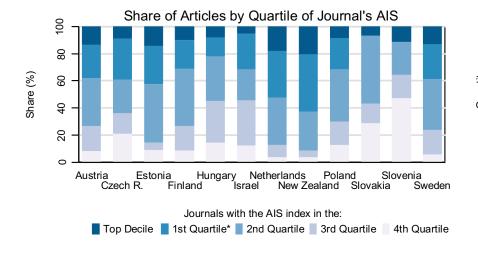
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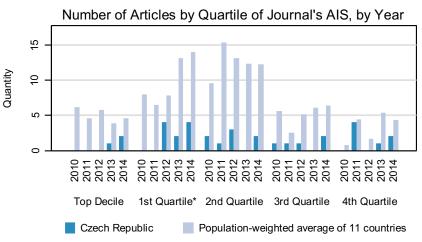
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SUBSTANCE ABUSE





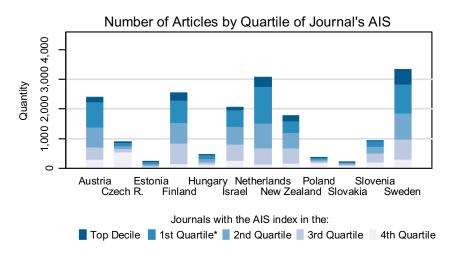


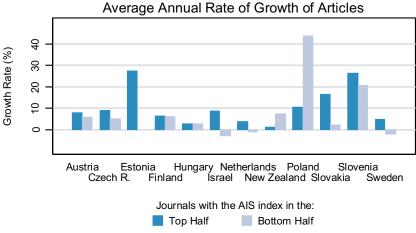


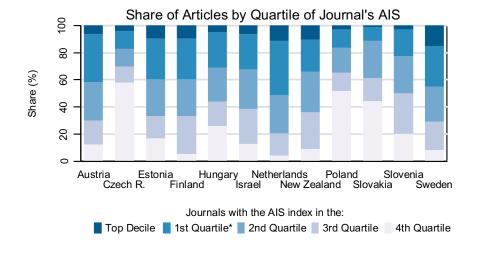
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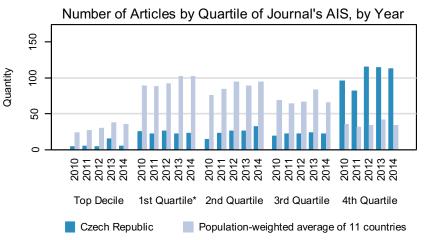
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SURGERY





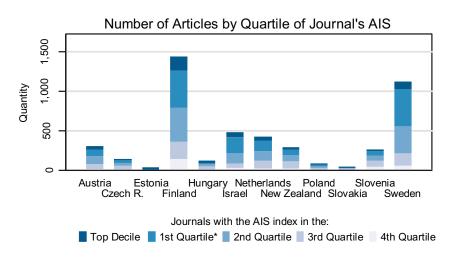


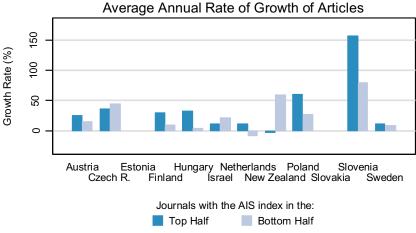


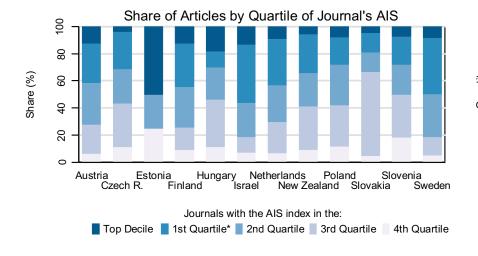
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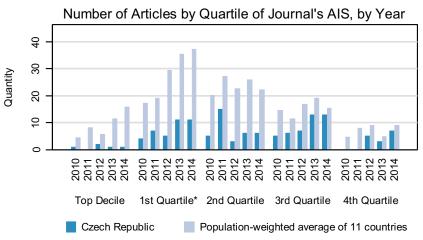
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TELECOMMUNICATIONS





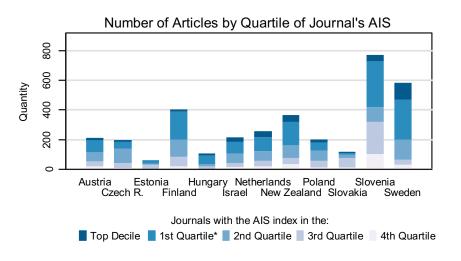


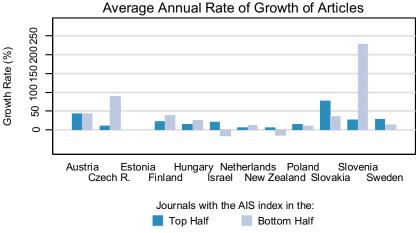


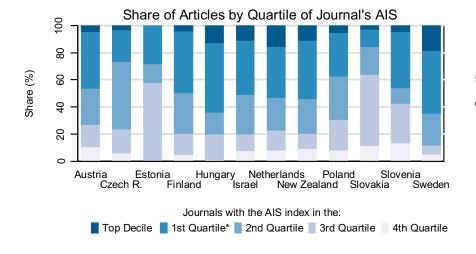
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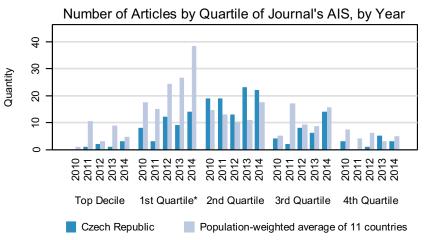
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THERMODYNAMICS





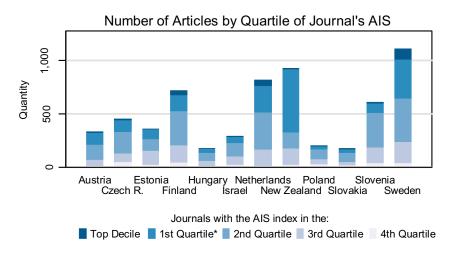


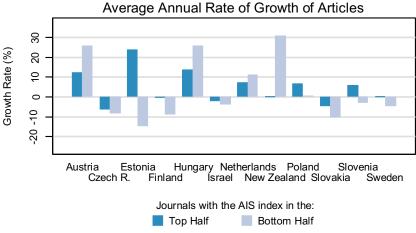


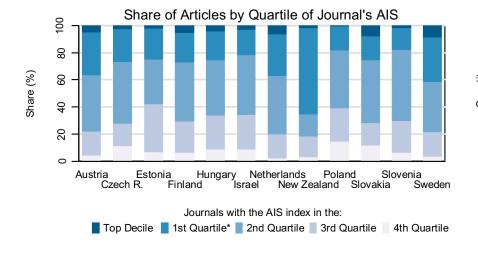
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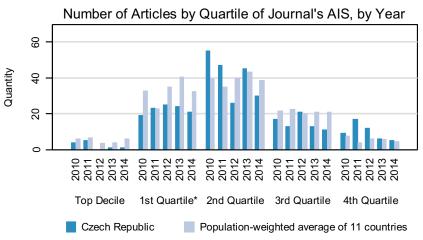
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TOXICOLOGY





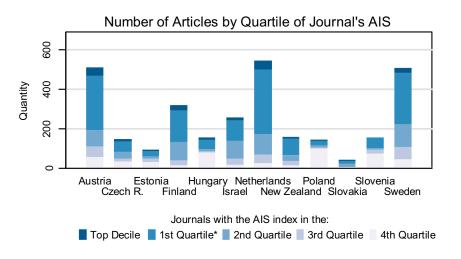


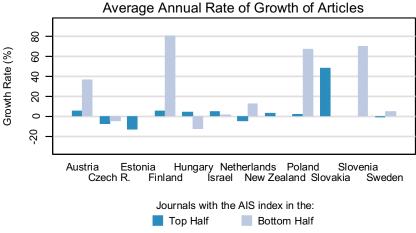


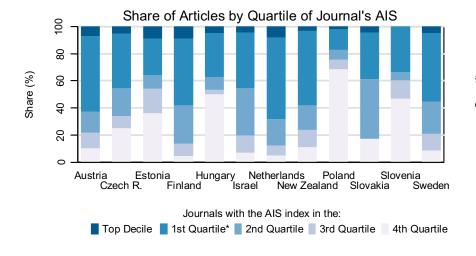
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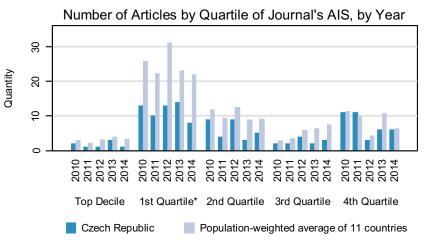
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TRANSPLANTATION





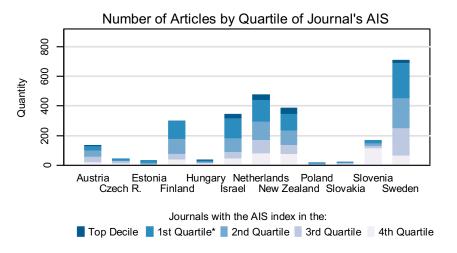


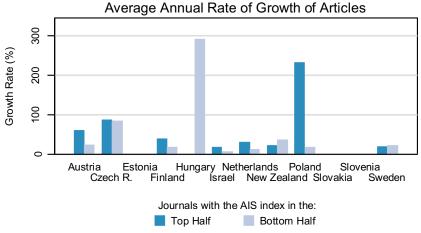


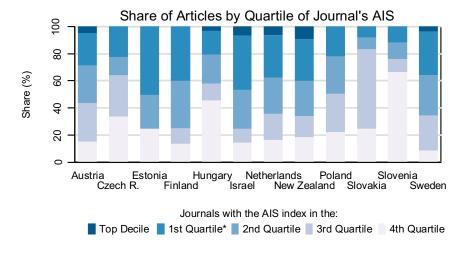
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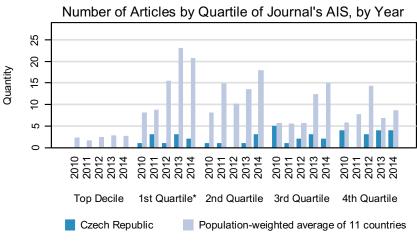
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TRANSPORTATION





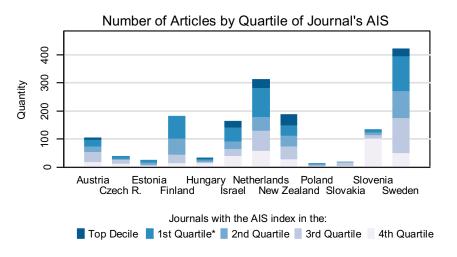


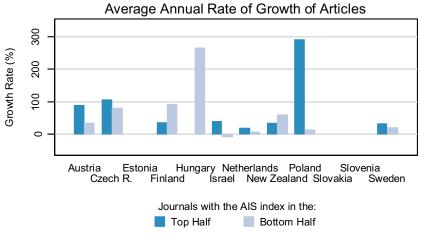


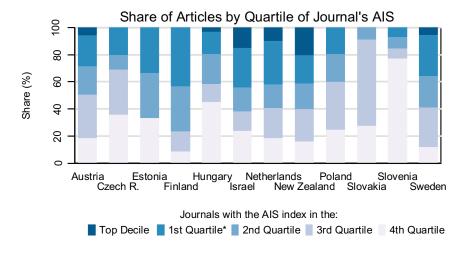
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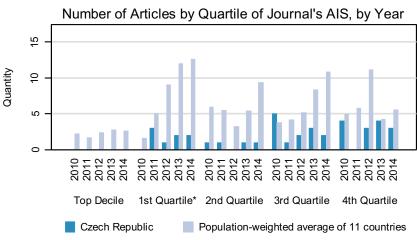
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TRANSPORTATION SCIENCE & TECHNOLOGY





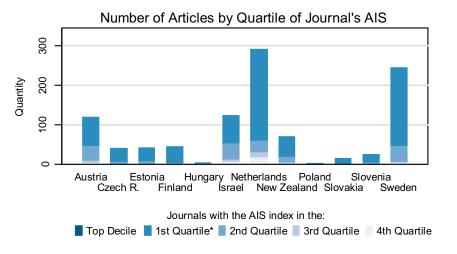


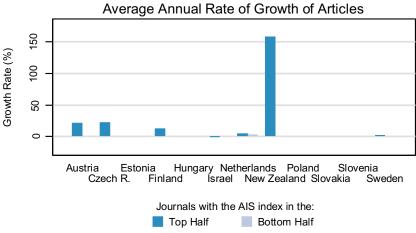


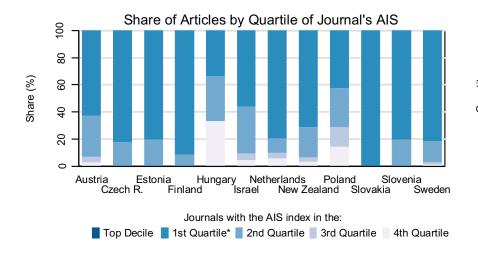
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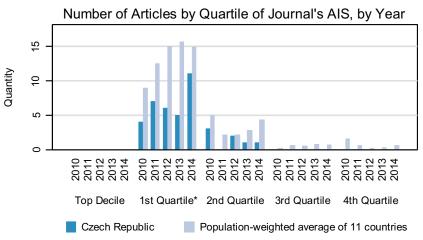
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TROPICAL MEDICINE





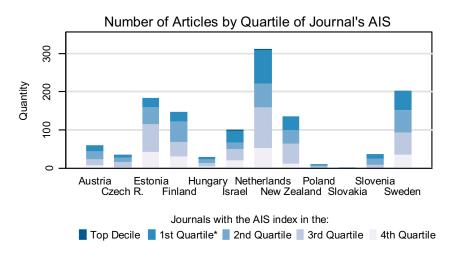


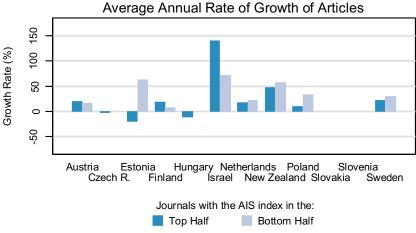


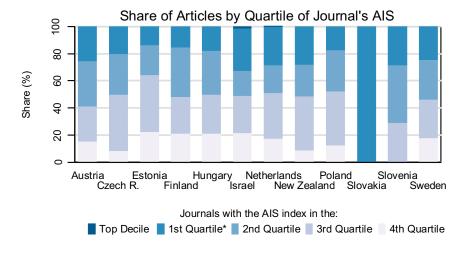
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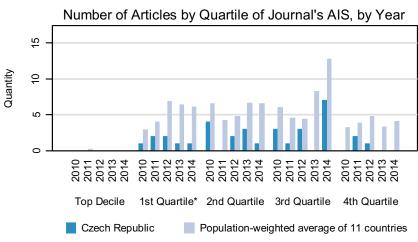
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URBAN STUDIES





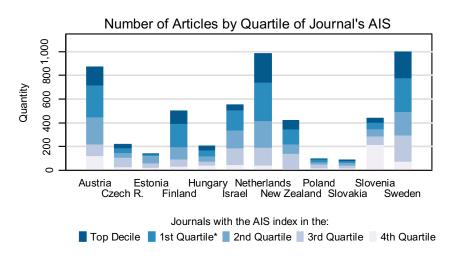


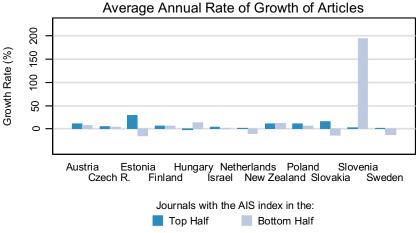


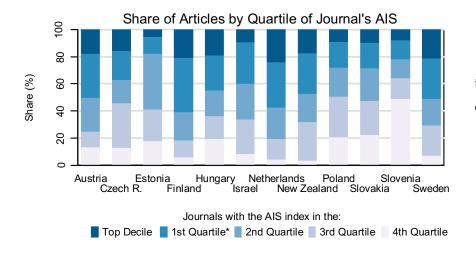
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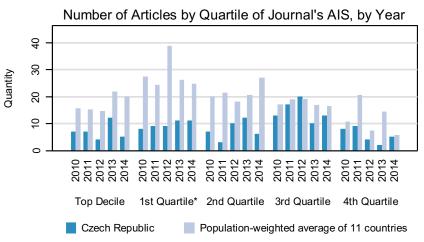
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UROLOGY & NEPHROLOGY





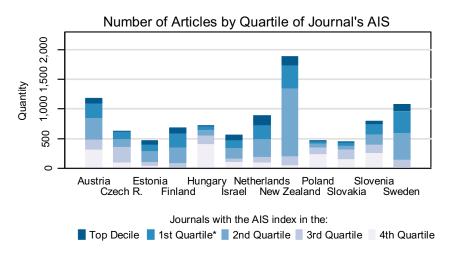


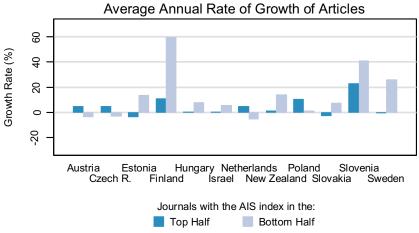


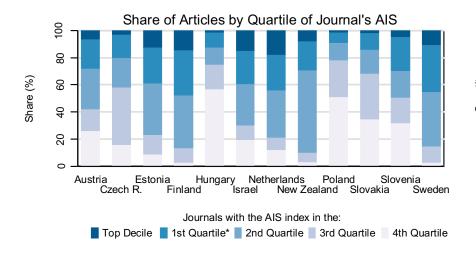
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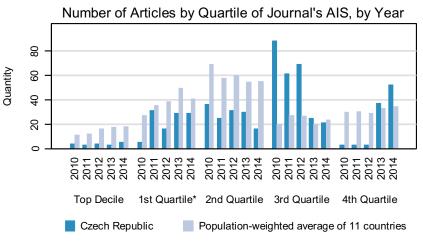
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VETERINARY SCIENCES





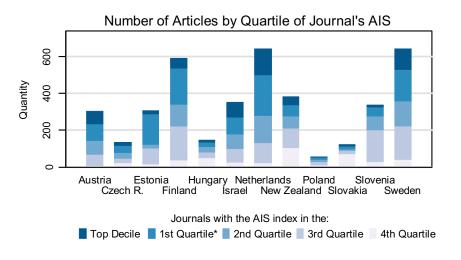


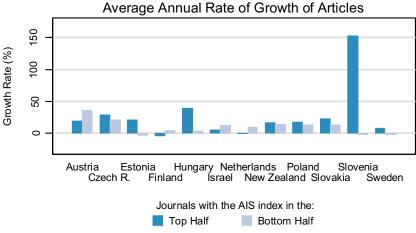


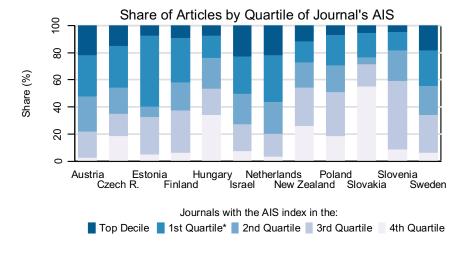
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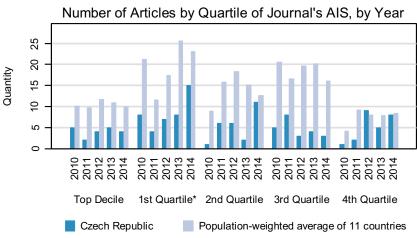
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VIROLOGY





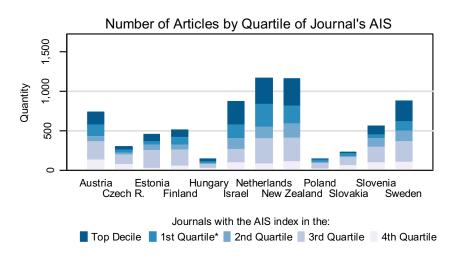


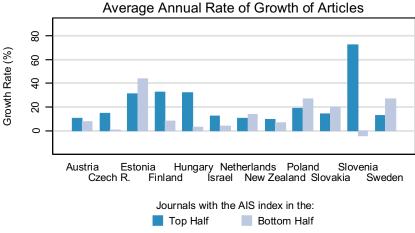


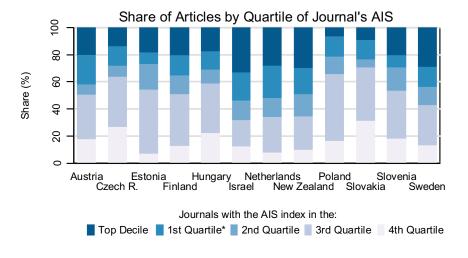
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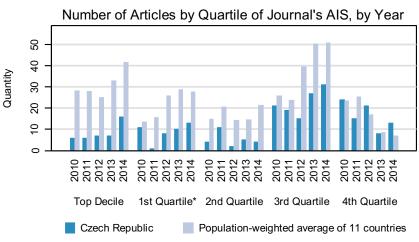
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WATER RESOURCES





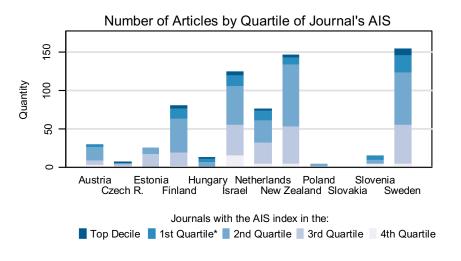


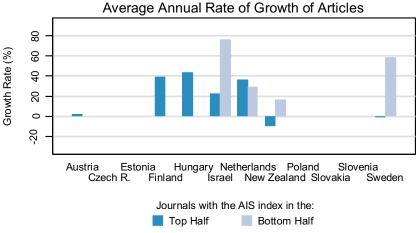


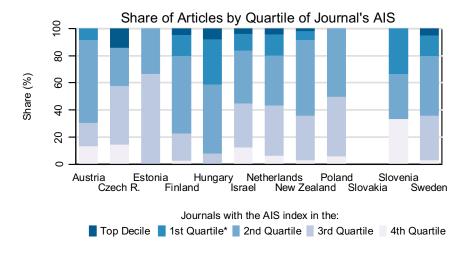
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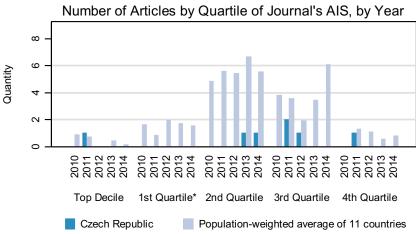
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WOMEN'S STUDIES





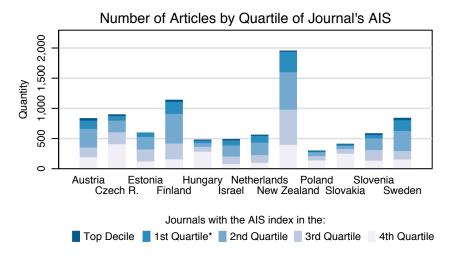


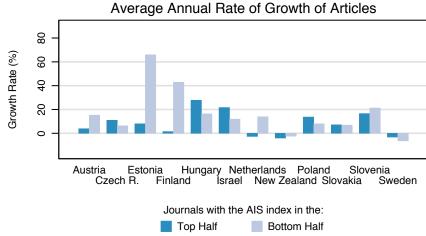


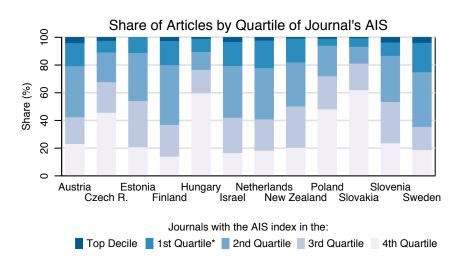
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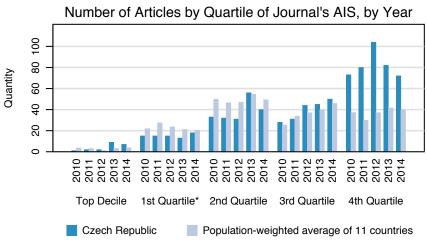
* 1st Quartile excludes the Top Decile

ZOOLOGY









Notes:

* 1st Quartile excludes the Top Decile

DĚKUJEME VŠEM SPONZORŮM / WE THANK ALL OUR SPONSORS













Antonín Fryč generální ředitel

Petr Šrámek advokát

Aktivity IDEA jsou součástí Strategie AV21 Activities of IDEA are part of the Strategy AV21



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Studie Institutu pro demokracii a ekonomickou analýzu (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.
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- 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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