

Evaluating the completeness of business databases A comparison with official records using web scraping techniques

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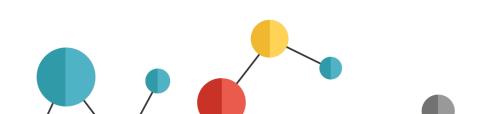


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Motivation

- SABI is widely used for business research
 - It is the local version of the ORBIS database
- BORME, the official business registry, provides a complementary source.
- Aim: Compare BORME and SABI to identify missing companies.



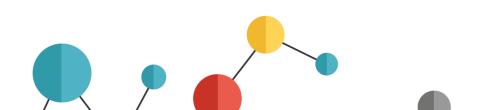






Research objectives

- Assess how many companies established 2010–2023 are missing in SABI
- Examine coverage by year of establishment, dissolution, province, sector, and legal form
- Uncover potential biases
 - (e.g., survivorship bias, size bias)

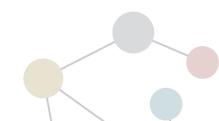




Data Sources

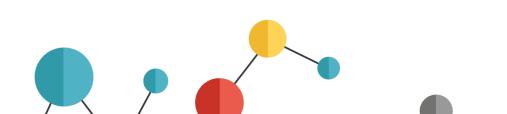
- SABI (Bureau van Dijk)
 - Commercial database with financial and registration data
 - Contains around 1.9 million Spanish companies (as of January 2024)

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22. X PEUGEOT CITROEN AUTOMOVILES ESPAÑA, SA (EXTINGUIDA)		22/09/199						
23. X I I ENDESA GENERACION SA		22/03/199	5 ESA024	5-057				



Data Sources

- BORME (Official Gazette in Spain)
 - Daily PDF publications by each registry
 - Essential legal information on all newly registered and dissolved companies





SECCIÓN PRIMERA

Empresarios

Actos inscritos

VALENCIA/VALÈNCIA

38512 - CITRISE SOCIEDAD LIMITADA.

Modificaciones estatutarias. Fecha de Cierre de Ejercicio: 31/12. Datos registrales. S 8 , H V 41910, I/A 12 (17.01.25).

38513 - YNNI FV2 SOLAR SL.

Ceses/Dimisiones. Adm. Unico: SELLES MARTINEZ MANUEL. LiqUnico: SELLES MARTINEZ MANUEL. Nombramientos. LiqUnico: SELLES MARTINEZ MANUEL. Otros conceptos: Cambio del Organo de Administración: Administrador único a Liquidador Unico. Disolución. Voluntaria. Extinción. Datos registrales. S 8, H V 206280, I/A 3 (17.01.25).

38514 - AGRIPA EXPLOTACIONES AGRICOLAS SL.

Ceses/Dimisiones. Adm. Unico: ALMENAR BAVIERA TERESA. Nombramientos. Adm. Unico: AYARZA ALMENAR ANTONIO. Datos registrales. S 8 , H V 198068, I/A 5 (17.01.25).

38515 - JATIVA URBANA SOCIEDAD LIMITADA.

Ceses/Dimisiones. Adm. Unico: CARRASCOSA RICHART ERNESTO. LiqManc: CARRASCOSA MARTINEZ ERNESTO; CARRASCOSA MARTINEZ JAVIER ERNESTO. **Nombramientos.** LiqManc: CARRASCOSA MARTINEZ ERNESTO; CARRASCOSA MARTINEZ JAVIER ERNESTO. **Otros conceptos:** Cambio del Organo de Administración: Administrador único a Liquidadores Mancomunados. **Disolución.** Voluntaria. **Extinción. Datos registrales.** S 8, H V 19489, I/A 13 (17.01.25).

38516 - BEAUTY ILDIVA SOCIEDAD LIMITADA.

Constitución. Comienzo de operaciones: 23.12.24. Objeto social: Actividad principal: Comercio al por menor por correspondencia o internet de productos diversos. Siendo el código de clasificación nacional de actividades económicas (C.N.A.E.) de la actividad principal el 47.91. - Otras actividades: Comercio al por mayor de productos de perfumería y droguería a ... Domicilio: C/ VALENCIA 9 (ALBALAT DELS SORELLS). Capital: 3.000,00 Euros. **Nombramientos.** Adm. Unico: SOVEN VIECO MIRIAM. **Datos registrales.** S 8 , H V 223050, I/A 1 (16.01.25).

38517 - AGENCIA NOVA CATARROJA SOCIEDAD LIMITADA.

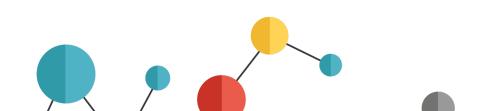
Ceses/Dimisiones. Adm. Unico: ESTEVE MARTINEZ PATRICIA. Nombramientos. Adm. Unico: ROMERO PENA BERNABE. Datos registrales. S 8 , H V 201283, I/A 6 (16.01.25).



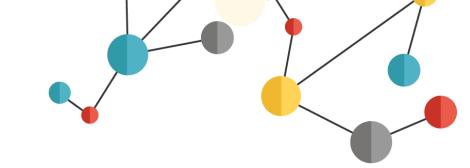
Methodology



- Downloaded and parsed ~100k PDF publications from BORME
- Extracted ~9.96 million entries on 3.05 million firms
- Entries were divided in fields (establishment, dissolution, legal form...)
- Filtered for companies established 2010–2023
 - 1.30 million firms
- Matched with SABI records to identify missing entities

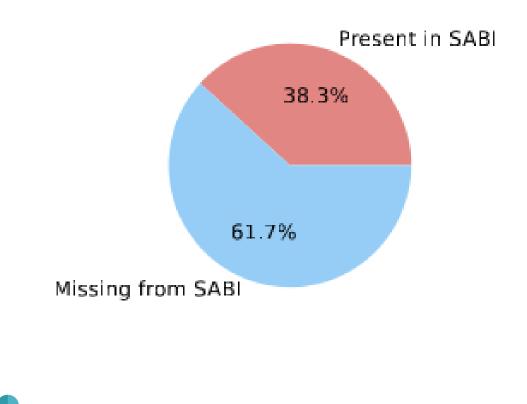








Only 38.3% of firms created 2010–2023 found in SABI

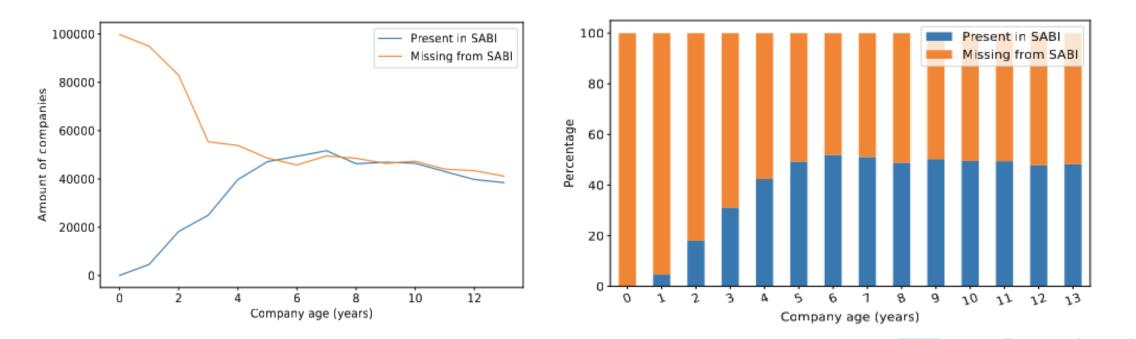






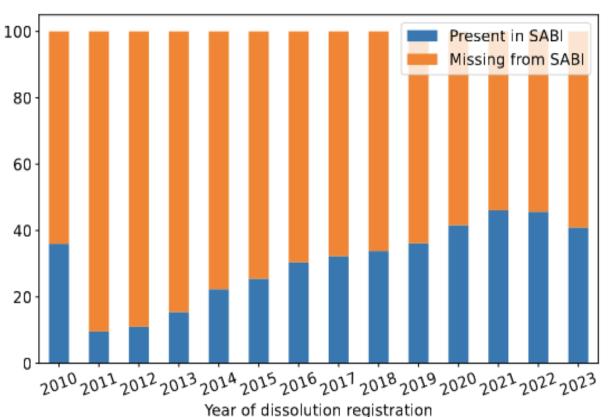
Coverage by Year of Establishment

- Marked underrepresentation of young firms
- ~50% coverage starts around age 5
- Implication: SABI underestimates recent entries



Survivorship Bias

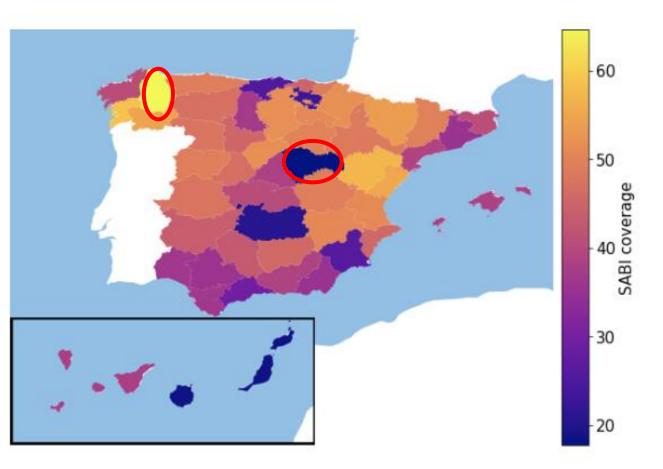
- Dissolved firms gradually disappear from SABI
- Coverage drops around 3.7 pp per year after dissolution
- Results can overestimate the longevity and success rates of the firms



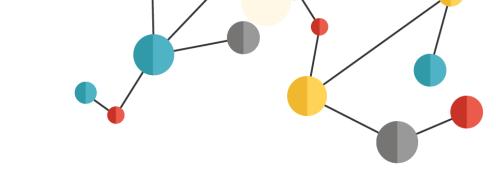


Geographic variation

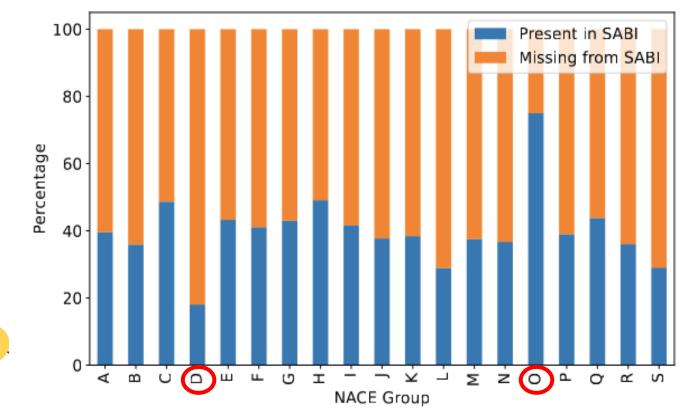
- Coverage ranges from ~65% (Lugo) to ~18% (Guadalajara)
- No clear link between coverage and population or coastal proximity

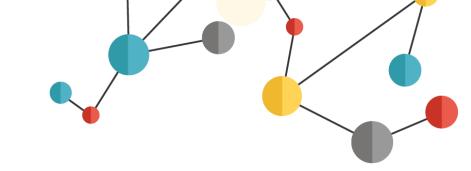


Sectoral variation



• Some industries better covered (e.g., Manufacturing), others underrepresented (e.g., Electricity supply)





Legal form variation

- Legal forms with higher capitalization (SA similar to PLC) have better coverage
- SL forms (similar to LLC) are underrepresented

Legal form	In SABI	Not in SABI	%In SABI	%Not in SABI
SL	493,774	831,318	37.26%	62.74%
\mathbf{SA}	$3,\!043$	2,987	50.46%	49.54%
Other	$2,\!951$	$8,\!941$	24.82%	75.18%



Conclusion



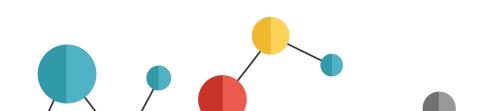
- SABI, like ORBIS, also has coverage limitations.
- It includes well-known companies, but many newer and lesserknown companies are not registered here. Additionally, it may exclude companies dissolved long ago, thus presenting various biases.
- It is necessary to correct these biases, including geographic, sectoral, survival, or selection biases, when preparing a research sample.



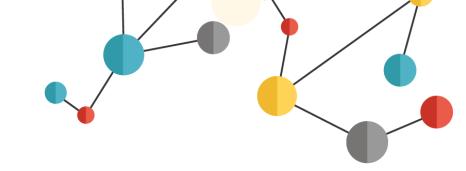
Limitations



- Time focus: 2010–2023 (does not capture longer-term trends)
- Companies may fail to deposit statements in the registry
- SABI's own data collection and removal policies are not fully transparent







Conclusion

- SABI covers a limited share of the Spanish corporate landscape, especially recent or small firms
- Survivorship bias and other coverage gaps can affect research results
- Researchers should exercise caution and consider alternative data or methodological corrections







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