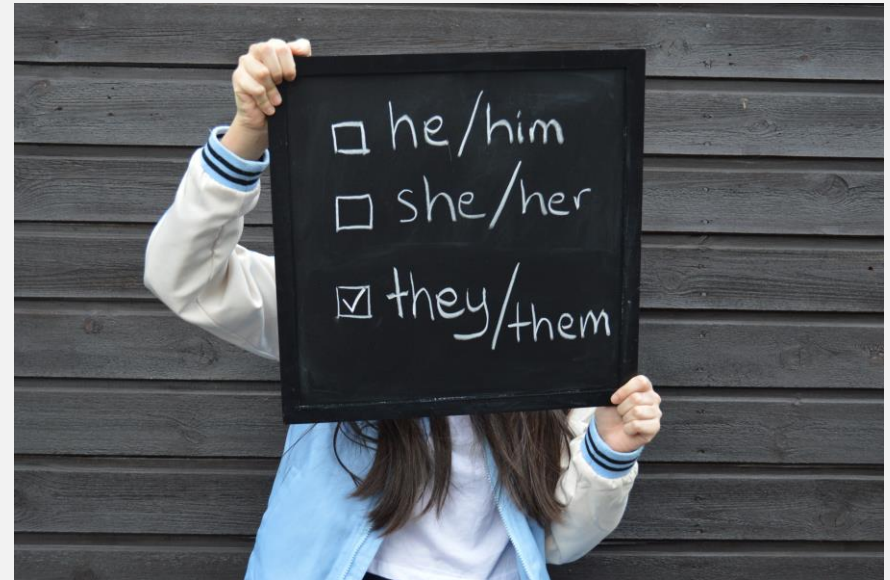


Beyond the Binary: Experiences with Gender Items in Population-Based and Non-Probability Surveys

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Background

1) Invisibility of gender minorities

„Still, for socioeconomic research, the greatest problem is that most LGB(TI)Qs are not counted (or do not count) at all.“

(Schöpflug et al. 2018, p. 22)

- Little research about gender minorities (Schöpflug et al. 2018; Valfort 2017)
- Estimates of transgender people in the adult population:
 - 0.1% in Chile (OECD 2019)
 - 0.3% in the United States (OECD 2019)
 - No reliable estimates for Germany
- Increasing diversity in LGBTQI* population (Watson et al. 2019)

Background

2) Gender minorities in surveys

- Gender minorities as hard to reach population (Kühne/Zindel 2020)
 - Classical probability-based sampling techniques are often less effective
 - Empirical results are often based on non-probability data
- Most probability-based surveys (in Germany) use binary gender items
 - Exclusion of gender minorities
 - Incomplete data
 - Few information about living circumstances of gender minorities

Background

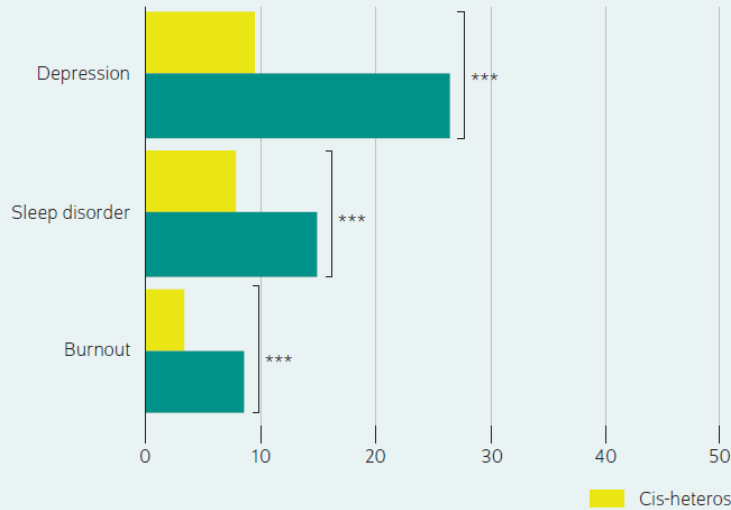
3) Empirical results

- Higher poverty rates and higher risk of unemployment (Carpenter et al., 2020)
- Discrimination affects mental health, well-being, and life satisfaction (Meyer 2003)
- Rising social acceptance of transgender people in most countries
 - But still on a low level (OECD 2019)
- Legal barriers in many countries (Mendos et al. 2020)
- Recent developments in Germany:
 - 2019: “Diverse” as the third option in the birth certificate
 - 2021: New government: revision of transgender laws in 2022

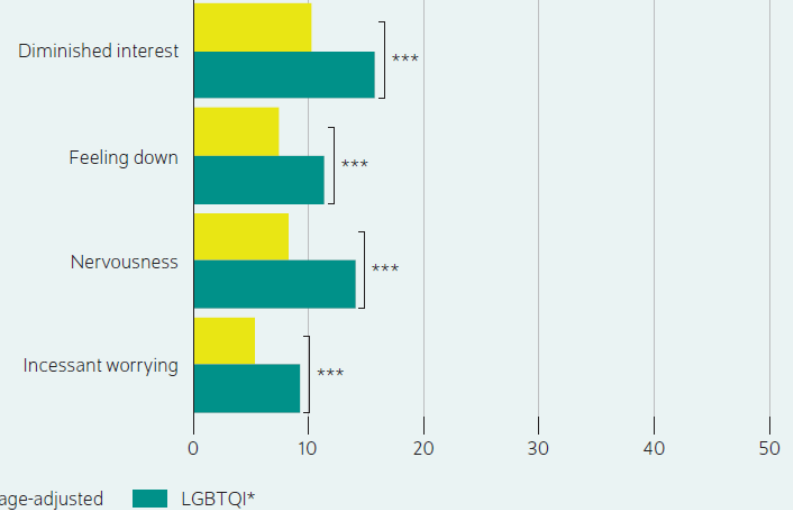
Background

Mental health Shares in percent

1a. Comparison of mental health between LGBTQI* and cis-heterosexual people
Share of people diagnosed with ...



1b. Comparison of depressive symptoms between LGBTQI* and cis-heterosexual people
Share of people who experience the following (almost) every day



Notes: In order to ensure the comparability of the cis-heterosexual reference group, this group was age-corrected (Box 2). The significance levels in parts 1a and 1b refer to the difference between the values for *cis-heterosexual, age-adjusted* and *LGBTQI*.* The stars ***, **, and * indicate the significance at the 0.1, one, and five percent level, respectively (probability of error decreases with number of stars).

Sources: Parts 1a and 1b: Socio-Economic Panel (Soep.v36.beta); LGBielefeld; authors' own calculations, weighted. Part 2: LGBielefeld; authors' own calculations, weighted.

Background

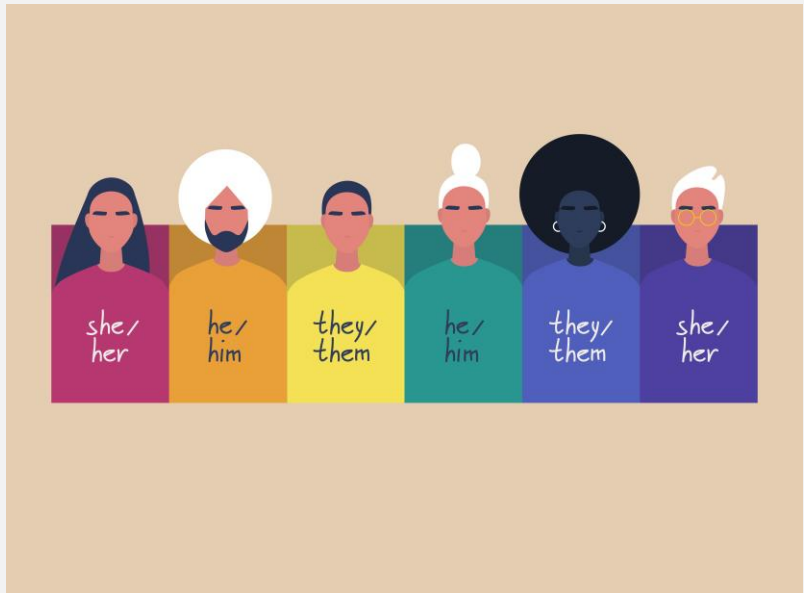


Notes: In order to ensure the comparability of the cis-heterosexual reference group, this group was age-corrected (Box 2). The significance levels in parts 1a and 1b refer to the difference between the values for "cis-heterosexual, age-adjusted" and "LGBTQ+." The stars ***, **, and * indicate the significance at the 0.1, one, and five percent level, respectively (probability of error decreases with number of stars).

Sources: Parts 1a and 1b: Socio-Economic Panel (Soep.v36.beta); LGBielefeld; authors' own calculations, weighted. Part 2: LGBielefeld; authors' own calculations, weighted.

How to sample gender minorities?

**SOEP-Q: SGM
boost-sample
vs.
LGBielefeld 2021:
online non-
probability sample**



SOEP-Q: SGM boost-sample

- German Socio-Economic Panel (SOEP):
 - One of the largest and longest-running household surveys worldwide
 - Approximately 30,000 people in 15,000 households are interviewed for the SOEP study
- In 2019: Boost sample of LGBTQI* people living in Germany
- Recruitment via random telephone screening of adults living in Germany
- Total: 477 households with respondents identifying as sexual and gender minority (882 households in the whole SOEP)
- 23 trans respondents
- 15 respondents with diverse gender identities (e.g., non-binary)

SOEP-Q: SGM boost-sample

Table 1: Results of the random telephone screening.

	N	Percent of Total	Percent of Valid
Total screening interviews	74,998	100.0	
Refusal to answer questions on sexual orientation and gender identity	21,501	27.7	
Completed screening interviews	53,497	71.3	100.0
In LGBTQ* target group	2,824	3.8	5.3
Intent to participate in SOEP	1,093	1.5	2.0
Contact information provided	1,023	1.4	1.9
Final gross boost Sample Q	835	1.1	1.6
False positive screenings	188	0.3	0.4

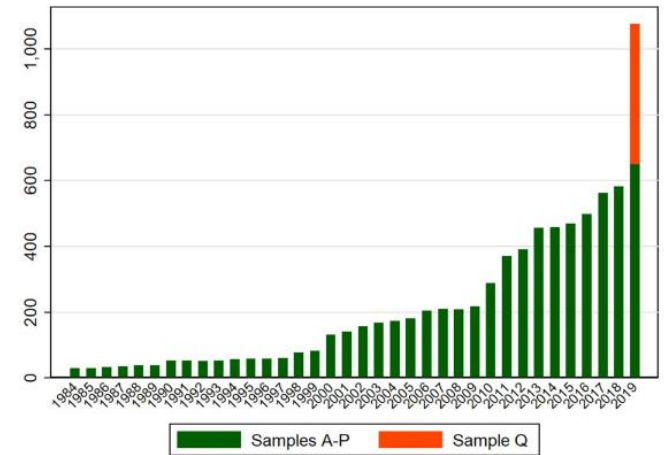


Figure 2a. Number of Interviews with SGM Respondents by Panel Wave (Total 7,762).
Source: SOEP v36 2019.

LG Bielefeld 2021: online non-probability sample

- Online survey with LGBTQI* people living in Germany
- September 3rd – October 1st, 2021
- Recruitment via ads on Facebook, 92 ads to reach different subgroups of the target population
- 7,607 complete interviews
- Focus on discriminatory experiences and gender minorities
- 589 trans* respondents
- 739 non-binary respondents



How to sample gender minorities?

Boost-sample (SOEP-Q)

- Probability-based dataset
- Cis-heterosexual comparison group
- Questionnaire limitations
- Needs more time and a lot more money
- Higher quality of the data
- 8 % gender minorities

Online survey (LGBielefeld)

- Non-probability data
- No comparison group
- Questionnaire limitations
- Fast and cheap results
- Data bias
- 18 % gender minorities



Both methods have disadvantages and advantages
Data combination via weighting

How to identify gender minorities?

**Two-step approach
vs. single-item question**

**Open answer question
vs. closed answer categories**



Two-step approach vs. single-item question

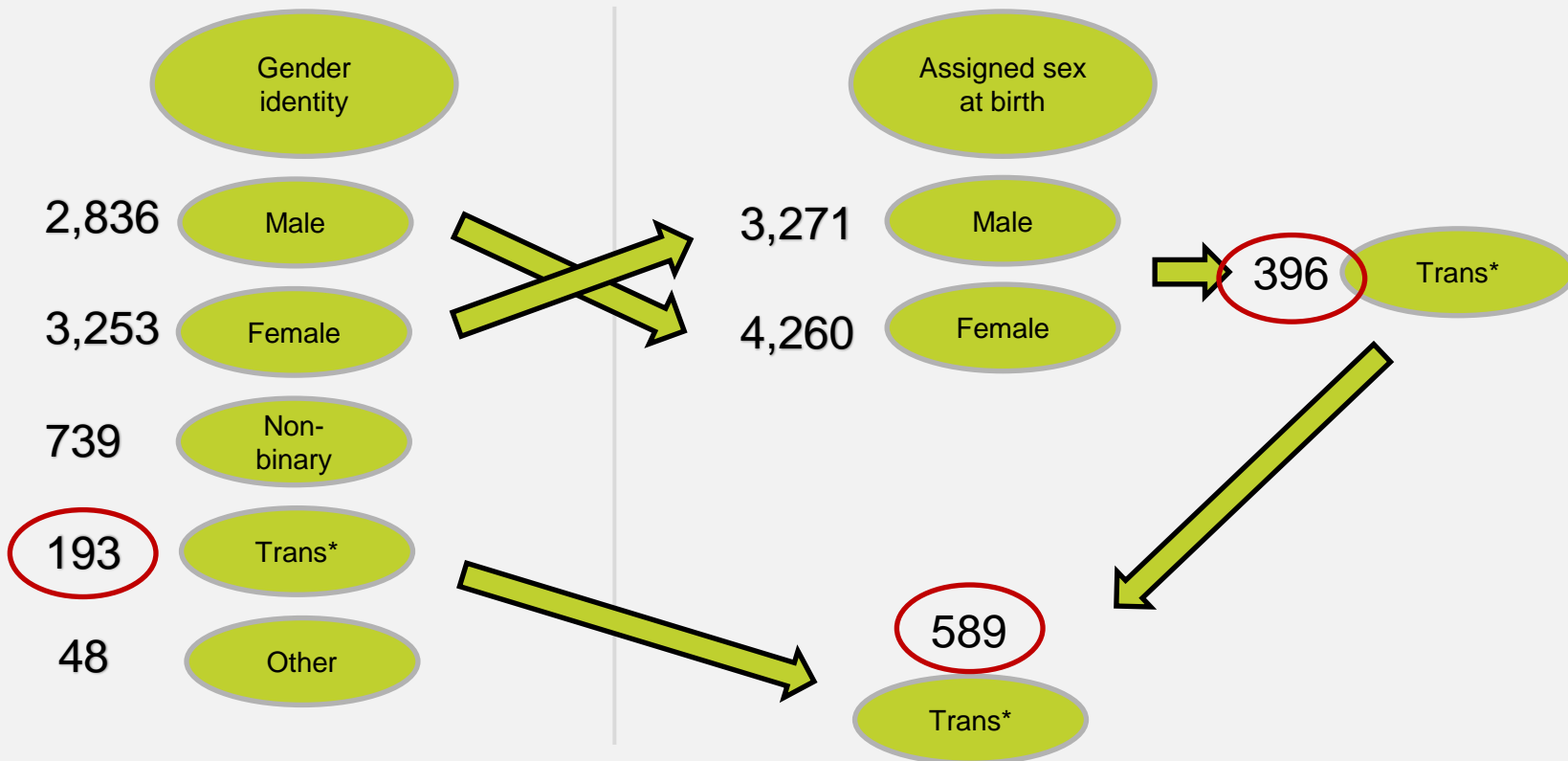
What sex were you assigned at birth, on your birth certificate?

- 1) Male
- 2) Female
- 3) No answer

And which gender do you identify with today?

- 1) Male
- 2) Female
- 3) Non-binary
- 4) Trans*
- 5) Other gender which is not listed here
- 6) No gender
- 7) No answer

Two-step approach vs. single-item question



Two-step approach vs. single-item question

- Two-step approach allows identifying more trans* people than single gender item
- Especially trans* people who finished their transition process
 - Single-item: 18% transition finished, 54% in transition
 - Two-step: 31% transition finished, 60% in transition

Open answer question vs. closed answer categories

And which gender do you identify with today?

- 1) Male
- 2) Female
- 3) Non-binary
- 4) Trans*
- 5) Other gender which is not listed here
- 6) No gender
- 7) No answer

What is your gender? (e.g., woman, agender)

- 1) Open answer field.

N=2,158

Open answer question vs. closed answer categories

- 1 **Male** (male, cis-male, man, heterosexual man, guy, ...)
- 2 **Female** (female, cis-female, woman, rather female, ...)
- 3 **Non-binary** (non-binary, neutral, ...)
 - 4.1 **Genderqueer, genderfluid** (genderqueer, genderfluid, bigender, ...)
 - 4.2 **Demigender** (demigender, demigirl, demiboy, ...)
 - 4.3 **Diverse** (diverse)
- 4 **Trans*** (trans, transgender, trans male, trans female, trans man, ...)
- 5 **Inter*** (inter, intersex, ...)
- 6 **Agender/no gender** (agender, no gender, no one, ...)
- 7 **More than one categorie** -> Dummy variables for each category
- 8 **Outside scope** (unclear answer, unsure, troll answer, gender commentary, ...)

Open answer question vs. closed answer categories

Open answer question	Closed answer categories							
	Male	Female	Non-binary	Trans*	No gender	No answer	Other	.
Male	93.14	0.00	0.12	1.51	0.00	0.23	0.00	5.00
Female	0.11	95.04	0.65	0.86	0.11	0.22	0.11	2.91
Non-binary	1.27	1.91	89.81	1.91	1.27	0.64	9.55	1.27
Trans*	26.09	0.00	0.00	65.22	0.00	0.00	8.70	0.00
Agender/no gender	0.00	0.00	41.30	0.00	47.83	0.00	6.52	4.35
More than one category	4.62	9.23	46.15	16.92	0.00	0.00	24.62	1.54
Outside scope	10.45	10.45	13.43	1.49	5.97	7.46	5.97	46.27

Open answer question vs. closed answer categories

- Open answer question the offers opportunity to define gender away from categories
- Avoid lists of categories which are not complete
 - BUT: you have to build categories afterward
 - Needs more time
 - Some cases are difficult to categorize
- Nearly same amount of people who chose no answer or gave answers out of scope (4-5%)
- High overlaps between the categories male, female and non-binary
- More differences between trans* (but a small number of cases)
- A combination of open answer gender question and closed sex (birth certificate) question allow us to identify more trans* people

Discussion

„Still, for socioeconomic research, the greatest problem is that most LGB(TI)Qs are not counted (or do not count) at all.“

(Schönpflug et al., 2018, p. 22)

- Different sampling approaches offer advantages and disadvantages
 - Data quality
 - Time and costs
 - Reachability of gender minorities
- Non-binary gender items are necessary to survey gender diversity
 - Especially identification of trans* people differs between approaches
 - High analytical potential

Thank you for the attention!

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