

RECOMMENDATIONS: MEASURING SEX, GENDER IDENTITY, AND SEXUAL ORIENTATION (2022)¹

Resource Developed by the NIH Sexual & Gender Minority Research Office

BACKGROUND

To improve the quality of data collection efforts and advance research and policy around LGBTQI+ population well-being, the National Institutes of Health asked the National Academies to convene a committee of experts to review current measures and the methodological issues related to measuring sex, gender identity, and sexual orientation and to produce a consensus report with recommended measures and guiding principles.

KEY CONCLUSIONS & RECOMMENDATIONS:

- The standard for the National Institutes of Health should be to collect data on gender and report it by default.
- Collection of data on sex as a biological variable should be limited to circumstances where information about sex traits is relevant, as in the provision of clinical preventive screenings or for research investigating specific genetic, anatomical, or physiological processes and their connections to patterns of health and disease. In human populations, collection of data on sex as a biological variable should be accompanied by collection of data on gender.
- The panel strongly encourages the reporting of the use of these write-in categories in published tabulations of responses.
- A Two-Spirit response category for AI/AN respondents in both the sexual orientation and gender identity groups should be included in situations when Indigenous populations can identify themselves. Because Two-Spirit is a term by and for Indigenous peoples and is culturally anchored with particular meaning and, potentially, social status, it is not appropriate for use by non-Indigenous populations.
- Response options of “I don’t know” and “Prefer not to answer” are only used where it is required to respond. The panel strongly encourages the continued testing and use of a write-in sexual orientation response option.

NONBINARY SEX

RECOMMENDED MEASURE

Have you ever been diagnosed by a medical doctor or other health professional with an intersex condition or a difference of sex development (DSD) or were you born with (or developed naturally in puberty) genitals, reproductive organs, or chromosomal patterns that do not fit standard definitions of male or female?

Yes

No

(Don’t know)

(Prefer not to answer)

FUTURE RESEARCH RECOMMENDATIONS

- The use of a single-item intersex/DSD status question.
- The quality of the three measures of intersex/DSD status that were identified by the panel as having the strongest grounding in evidence to determine which measure most effectively identifies the intersex/DSD population in a range of settings.
- The effects of including definitions and examples of terms used in intersex status questions, such as “intersex,” “DSD,” and specific intersex variations.
- The prevalence of “intersex” as a gender identity both among people with known intersex variations and people without intersex variations.
- The effects of proxy reporting of intersex/DSD status, particularly of parents reporting their children’s status.

¹ National Academies of Sciences, Engineering, and Medicine 2022. *Measuring Sex, Gender Identity, and Sexual Orientation*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26424>.

GENDER IDENTITY

RECOMMENDED MEASURE

*Both parts of this question should be presented together and analyzed and reported in concert.²

Q1: What sex were you assigned at birth, on your original birth certificate?

Female

Male

(Don't know)

(Prefer not to answer)

Q2: What is your current gender? [Select one]

Female

Male

Transgender

[If respondent is AIAN:] Two-Spirit

I use a different term: [free text]

(Don't know)

(Prefer not to answer)

FUTURE RESEARCH RECOMMENDATIONS

- Testing of gender-specific response categories for the current gender question, along with optimal answer option ordering, and the utility of a confirmation question. Testing should also confirm optimal ordering of the two-step components in both survey research and in other settings.
- Alternative two-step gender measures that offer an inclusive count of both cisgender and transgender people for use in contexts where the privacy and confidentiality of sex assigned at birth responses cannot be assured or where specific information on sex assigned at birth is unnecessary but identifying transgender people for the purposes of service delivery or monitoring disparities is still desirable.
- Assessment of the inclusion of “nonbinary” in the gender identity response categories.
- Periodic reevaluation of write-in gender identity responses and how they change over time and may vary

in different settings; periodic reevaluation of listed response options is also recommended.

- Evaluation of the utility of including a nonbinary response when asking about sex assigned at birth, particularly if nonbinary sex markers on birth certificates become more widely available, and consideration of how nonbinary gender identities should be counted in terms of cisgender or transgender status.
- Expanded testing of the recommended two-step gender measure beyond general population assessments of English-speaking adults, including updated translations and studies of response equivalence.
- Further testing among youth and in settings where a single respondent replies for all household members.
- Further testing a “select all that apply” option for the current gender question.

SEXUAL ORIENTATION

RECOMMENDED MEASURE

Which of the following best represents how you think of yourself? [Select ONE]:

Lesbian or gay

Straight, that is, not gay or lesbian

Bisexual

[If respondent is AIAN:] Two-Spirit

I use a different term [free text]

(Don't know)

(Prefer not to answer)

FUTURE RESEARCH RECOMMENDATIONS

- Alternate wording for the “straight” response option that performs equally well as, or better than, the existing recommendation for English- and non-English-speaking populations without using language that negates gay or lesbian identities.
- The ordering of response categories, including sorting response categories based on population prevalence.
- Guidelines for measures that capture other dimensions of sexual orientation, including sexual behavior and sexual attraction: in particular, asexual identities.

- The utility of including sexual orientation response options that may be more prevalent in subsets of the LGBTQI+ population.
- The performance of existing measures and identification of best practices for how to assess sexual minority status among adolescents.
- How reporting of sexual orientation is affected when reporting is done by proxy, such as when a single household respondent responds on behalf of all household members.

² For guidance on analyzing and reporting on the two-step GI, see Chapter 6 of the [NASEM Report](#).