# Ohio - State of the Girl Report

# Sources



# Pages 4 & 5: Executive Summary

## Data in text:

- Feelings of Despair and Access to Treatment: Youth Risk Behavior Survey (2021), Health Policy Institute of Ohio (2024), National Survey of Children's Health (2022)
- o Bullying and Cyberbullying: Ohio Youth Risk Behavior (2019, 2021)
- Proficiency and Attendance: Ohio Department of Education and Workforce (2022-2023), Ohio Department of Education and Workforce (2020-2024)
- Sexual and Physical Dating Violence: Youth Risk Behavior Surveillance System (YRBSS), (2013 2021)
- o Health insurance: U.S. Census, ASC 5-Year Estimates, Table B27001-3 (2022)
- Graduation and Higher Education: Ohio Department of Education and Workforce (2022-2023),
  Ohio Department of Higher Education (2023), U.S. Census, ASC 5-Year Estimate, Table S1502 (2015, 2022)
- Ohio women with STEM degrees: Source: U.S. Census 5 year estimates, (2015 2021), Ohio and National Data
- o Participation in Activities: National Survey of Children's Health (2021-2022)

# Pages 6 & 7: Call to Action

Our Call to Action was inspired by the work of the <u>Girl Coalition of Indiana</u> in their 2024 Indiana Girl Report. Together we acknowledge the roles that communities, caregivers, youth program providers, policy makers, and schools play in helping girls to thrive and succeed.

# Pages 8 & 9: Demographics of Ohio Girls

- 1. Goodman-Bacon, A. (2021). The long-run effects of childhood insurance coverage: Medicaid implementation, adult health, and labor market outcomes. *American Economic Review*, *111*(8), 2550-2593.
- 2. National Survey of Children's Health. (2024). *Survey results*. <a href="https://nschdata.org/browse/survey/results?q=10266&r=1&g=1073&r2=37&a=20703">https://nschdata.org/browse/survey/results?q=10266&r=1&g=1073&r2=37&a=20703</a>

## Data in text:

- Demographic counts: U.S. Census, ASC 5-Year Estimates, Table B01001 (2022), Table B01001A-I (2012-2022)
- o Poverty: U.S. Census, ASC 5-Year Estimates, Table B1700 (2012-2022)
- o Health insurance: U.S. Census, ASC 5-Year Estimates, Table B27001-3 (2022)

#### Data in tables and charts:

- Table Ohio girls by race and ethnicity: U.S. Census, ASC 5-year Estimate, Table B01001A-I, (2012, 2017, 2022), Ohio Data
- Chart BIPOC girls in Ohio: U.S. Census, ASC 5-year Estimate, Table B01001A-I, (2012, 2017, 2022),
  Ohio Data
- Chart BIPOC girls in the U.S.: U.S. Census, ASC 5-year Estimate, Table B01001A-I, (2012, 2017, 2022), National Data
- Chart Girls living in poverty: U.S. Census, ASC 5-year Estimate, Table B17001 (2012, 2017, 2022),
  Ohio and National Data
- Chart Girls with health insurance: Health Insurance Coverage for Ohio Girls. Source: U.S. Census,
  ASC 5-year Estimate, Tables B27001-3, (2022), Female Only, Ohio data

# Pages 10 & 11: Physical Wellness of Ohio Girls

- 3. Chaput, J. P., Willumsen, J., Bull, F., Chou, R., Ekelund, U., Firth, J., ... & Katzmarzyk, P. T. (2020). 2020 WHO guidelines on physical activity and sedentary behaviour for children and adolescents aged 5–17 years: summary of the evidence. *International Journal of Behavioral Nutrition and Physical Activity*, *17*, 1-9.
- 4. Spencer, C. M., Anders, K. M., Toews, M. L., & Emanuels, S. K. (2020). Risk markers for physical teen dating violence victimization in the United States: A meta-analysis. *Journal of youth and adolescence*, *49*, 575-589.

#### Data in text:

- Exercise and Wellness: National Survey of Children's Health (2022)
- Sexual and Physical Dating Violence: Youth Risk Behavior Surveillance System (YRBSS), (2013 2021)
- o Teen birth rates: Center for Disease Control and Prevention (2013-2022)

## Data in tables and charts:

- Chart Physical and sexual dating violence: Centers for Disease Control and Prevention: Youth Risk Behavior Surveillance System, 9th-12th grade, (2013 results), Females Only, Ohio data
- Chart Teen birth rate: Center for Disease Control and Prevention & National Center for Health Statistics, (2013-2022), Female Only, National Data

# Pages 12 & 13: Emotional Wellness of Ohio Girls

- 5. US Department of Health and Human Services. (2023). New surgeon general advisory raises alarm about the devastating impact of the epidemic of loneliness and isolation in the United States. *Press release, May 3*, 2023.
- 6. American Psychological Association. (2021). *2021 COVID-19 practitioner survey*. <a href="https://www.apa.org/pubs/reports/practitioner/covid-19-2021">https://www.apa.org/pubs/reports/practitioner/covid-19-2021</a>

7. General, O. (2021). US Surgeon General issues advisory on youth mental health crisis further exposed by COVID-19 pandemic. *HHS gov Retrieved January 3*, 2022.

#### Data in text:

- o Adverse Childhood Experiences: The National Survey of Children's Health (2021-2022)
- Feelings of Despair and Access to Treatment: Youth Risk Behavior Survey (2021), Health Policy Institute of Ohio (2024), National Survey of Children's Health (2022)

## Data in tables and charts:

 Table – Adverse Childhood Experiences: National Survey of Children's Health, (2021-2022), Ohio data

## Pages 14 & 15: Social Wellness of Ohio Girls

8. Kennedy, R. S. (2021). Bullying trends in the United States: A meta-regression. *Trauma, Violence, & Abuse, 22*(4), 914-927.

#### Data in text:

- o Bullying and Cyberbullying: Ohio Youth Risk Behavior (2019, 2021)
- Community Support and Engagement: Ohio Healthy Youth Environment Survey (OHYES), (2022-2023), National Survey of Children's Health (2022)
- o Participation in Activities: National Survey of Children's Health (2021-2022)

## Data in tables and charts:

- o Chart Ohio high school bullying: Youth Risk Behavior Survey, (2011, 2013, 2021), Ohio Data
- o Chart Ohio middle school bullying: Youth Risk Behavior Survey, Ohio, (2019, 2021)
- Chart Participation in activities: National Survey of Children's Health, Girls Only, Ohio data

# Pages 16 & 17: Academics of Ohio Girls

- 9. Ross, C. E., & Wu, C. L. (1995). The links between education and health. *American sociological review*, 719-745.
- 10. Uchino, B. N. (2006). Social support and health: a review of physiological processes potentially underlying links to disease outcomes. *Journal of behavioral medicine*, *29*, 377-387.
- 11. Miech, R., Pampel, F., Kim, J., & Rogers, R. G. (2011). The enduring association between education and mortality: the role of widening and narrowing disparities. *American sociological review*, *76*(6), 913-934.

- 12. Stoet, G., & Geary, D. C. (2020). Gender differences in the pathways to higher education. *Proceedings of the National Academy of Sciences*, *117*(25), 14073-14076.
- 13. Martinez, A., & Christnacht, C. (2021). Women making gains in STEM occupations but still underrepresented. *United States Census Bureau*, *26*.

## Data in text:

- Proficiency and Attendance: Ohio Department of Education and Workforce (2022-2023), Ohio Department of Education and Workforce (2020-2024)
- Graduation and Higher Education: Ohio Department of Education and Workforce (2022-2023),
  Ohio Department of Higher Education (2023), U.S. Census, ASC 5-Year Estimate, Table S1502 (2015, 2022)

## Data in tables and charts:

- Chart ELA proficiency: Ohio Department of Education and Workforce Report Portal (2019-2024).
  Academic Proficiency, Grades 3 to 8
- Chart Math proficiency: Ohio Department of Education and Workforce Report Portal (2019-2024). Academic Proficiency, Grades 3 to 8
- o Table Ohio Undergraduate enrollment: Ohio Department of Education (2023), Ohio Data
- o Table STEM careers: U.S. Census 5-year estimates, (2015 2021), Ohio and National Data

## Pages 18 - 20: Bullying

- 14. Committee on the Biological and Psychosocial Effects of Peer Victimization: Lessons for Bullying Prevention; Board on Children, Youth, and Families; Committee on Law and Justice; Division of Behavioral and Social Sciences and Education; Health and Medicine Division; National Academies of Sciences, Engineering, and Medicine; Rivara F, Le Menestrel S, editors. Preventing Bullying Through Science, Policy, and Practice. Washington (DC): National Academies Press (US); 2016 Sep 14. 4, Consequences of Bullying Behavior. <a href="https://www.ncbi.nlm.nih.gov/books/NBK390414/">https://www.ncbi.nlm.nih.gov/books/NBK390414/</a>
- 15. Committee on the Biological and Psychosocial Effects of Peer Victimization: Lessons for Bullying Prevention; Board on Children, Youth, and Families; Committee on Law and Justice; Division of Behavioral and Social Sciences and Education; Health and Medicine Division; National Academies of Sciences, Engineering, and Medicine; Rivara F, Le Menestrel S, editors. Preventing Bullying Through Science, Policy, and Practice. Washington (DC): National Academies Press (US); 2016 Sep 14. 4, Consequences of Bullying Behavior. <a href="https://www.ncbi.nlm.nih.gov/books/NBK390414/">https://www.ncbi.nlm.nih.gov/books/NBK390414/</a>
- 16. Committee on the Biological and Psychosocial Effects of Peer Victimization: Lessons for Bullying Prevention; Board on Children, Youth, and Families; Committee on Law and Justice; Division of Behavioral and Social Sciences and Education; Health and Medicine Division; National Academies of Sciences, Engineering, and Medicine; Rivara F, Le Menestrel S, editors. Preventing Bullying Through Science, Policy, and Practice. Washington (DC): National Academies Press (US); 2016 Sep 14. 4, Consequences of Bullying Behavior. <a href="https://www.ncbi.nlm.nih.gov/books/NBK390414/">https://www.ncbi.nlm.nih.gov/books/NBK390414/</a>

- 17. White, D.W., Young, J., & Ogletree, Q (2023). The same but better: Why some black girls prefer virtual learning. Journal of Online Learning Research, 9(2), 141-162. https://files.eric.ed.gov/fulltext/EJ1400775.pdf
- 18. Kumar VL, Goldstein MA. Cyberbullying and Adolescents. Curr Pediatr Rep. 2020 Sep;8(3):86-92. doi: 10.1007/s40124-020-00217-6. Epub 2020 Jun 3. PMID: 33552702; PMCID: PMC7864530.
- 19. Pew Research Center (2022). Teens and Cyberbullying 2022.
- 20. Rice, E., Petering, R., Rhoades, H., Winetrobe, H., Goldbach, J., Plant, A., Montoya, J., & Kordic, T. (2015). Cyberbullying perpetration and victimization among middle-school students. *American journal of public health*, *105*(3), e66–e72. https://doi.org/10.2105/AJPH.2014.302393
- 21. Pew Research Center (2023). Teens, social media and technology 2023.
- 22. Doumas, D.M. & Midgett, A. (2020). The association between witnessing cyberbullying and depressive symptoms and social anxiety among elementary school students. *Psychology in the Schools*, 58(3), 622-637. <a href="https://doi.org/10.1002/pits.22467">https://doi.org/10.1002/pits.22467</a>
- 23. Doumas, D.M. & Midgett, A. (2020). The association between witnessing cyberbullying and depressive symptoms and social anxiety among elementary school students. *Psychology in the Schools*, 58(3), 622-637. <a href="https://doi.org/10.1002/pits.22467">https://doi.org/10.1002/pits.22467</a>
- 24. U.S. Department of Health and Human Services. *Get Help Now.* <a href="https://www.stopbullying.gov/resources/get-help-now">https://www.stopbullying.gov/resources/get-help-now</a>
- 25. Ohio Department of Education and Workforce. Anti-Harassment, Intimidation and Bullying Resources. <a href="https://education.ohio.gov/Topics/Student-Supports/Safe-and-Supportive-Schools/Anti-Harassment-Intimidation-and-Bullying-Resource">https://education.ohio.gov/Topics/Student-Supports/Safe-and-Supportive-Schools/Anti-Harassment-Intimidation-and-Bullying-Resource</a>

## Data in tables and charts:

- Chart Negative effects of bullying: 2022 School Crime Supplement to the National Crime Victimization Survey
- Chart Reasoning for being bullied: 2022 School Crime Supplement to the National Crime Victimization Survey
- o Table Types of cyberbullying: Pew Research Center Teens and Cyberbullying 2022

# Pages 20 & 21: Body Image

- 26. Office on Women's Health. (2021). Body image. U.S. Department of Health and Human Services. <a href="https://www.womenshealth.gov/mental-health/body-image-and-mental-health/body-image#references">https://www.womenshealth.gov/mental-health/body-image-and-mental-health/body-image#references</a>
- 27. Office on Women's Health. (2021). Body image. U.S. Department of Health and Human Services. <a href="https://www.womenshealth.gov/mental-health/body-image-and-mental-health/body-image#references">https://www.womenshealth.gov/mental-health/body-image-and-mental-health/body-image#references</a>
- 28. He, J., Sun, S., Zickgraf, H. F., Lin, Z., & Fan, X. (2020). Meta-analysis of gender differences in body appreciation. Body image, 33, 90-100. https://doi.org/10.1016/j.bodyim.2020.02.011
- 29. Andersen, A.E. (2022). Diagnosis and treatment of the eating disorder spectrum in primary care medicine. In P.S. Mehler and A.E. Andersen (Eds.) Eating disorders: A comprehensive guide to medical

- care and complications (4th ed.) (pp. 1-106). Baltimore, Maryland: Johns Hopkins University Press. http://dx.doi.org/10.1007/s40519-022-01479-3
- 30. Roberts, S. R., Maheux, A. J., Hunt, R. A., Ladd, B. A., & Choukas-Bradley, S. (2022). Incorporating social media and muscular ideal internalization into the tripartite influence model of body image: Towards a modern understanding of adolescent girls' body dissatisfaction. Body image, 41, 239-247. https://doi.org/10.1016/j.bodyim.2022.03.002
- 31. Ruling Our Experiences. (2023). *The 2023 Girls Index by Rox*. Ruling Our Experiences. <a href="https://www.rulingourexperiences.com/research">https://www.rulingourexperiences.com/research</a>
- 32. Fischetti, F., Latino, F., Cataldi, S., & Greco, G. (2020). Gender differences in body image dissatisfaction: The role of physical education and sport. Journal of Human Sport and Exercise, 15(2), 241-250. https://doi.org/10.14198/jhse.2020.152.01
- 33. Walters, K., Chard, C., Castro, E., & Nelson, D. (2023). The Influence of a girls' health and well-being program on body image, self-esteem, and physical activity enjoyment. Behavioral Sciences, 13 (9), 1-13. <a href="https://doi.org/10.3390/bs13090783">https://doi.org/10.3390/bs13090783</a>
- 34. Walters, K., Chard, C., Castro, E., & Nelson, D. (2023). The Influence of a girls' health and well-being program on body image, self-esteem, and physical activity enjoyment. Behavioral Sciences, 13 (9), 1-13. <a href="https://doi.org/10.3390/bs13090783">https://doi.org/10.3390/bs13090783</a>
- 35. Chen, T. J., Watson, K. B., Michael, S. L., & Carlson, S. A. (2021). Sex-stratified trends in meeting physical activity guidelines, participating in sports, and attending physical education among US adolescents, Youth Risk Behavior Survey 2009–2019. Journal of Physical Activity and Health, 18(S1), S102–S113. https://doi.org/10.1123/jpah.2021-0263
- Farooq, A., Martin, A., Janssen, X., Wilson, M. G., Gibson, A-M., Hughes, A., & Reilly, J. J. (2020). Longitudinal changes in moderate-to-vigorous-intensity physical activity in children and adolescents: A systematic review and meta-analysis. Obesity Reviews, 21, 1-15. https://doi.org/10.1111/obr.12953 Kellstedt, D.K., Schenkelberg, M.A., Essay, A.M., Seggern, M. J. V., Rosenkranz, R. R., Welk, G. J., High, R., & Dzewaltowski, D.A. (2021). Youth sport participation and physical activity in rural communities. Archives of Public Health, 79, 1-8. https://doi.org/10.1186/s13690-021-00570-y
- 36. Smith, L.H., Petosa, R.L. & Laurent, D. (2020). Efficacy of "Mentoring to Be Active" on weight loss, body mass index, and body fat among obese and extremely obese youth in rural Appalachia. The Journal of Rural Health, 36, 77-87. <a href="https://doi.org/10.1111/jrh.12410">https://doi.org/10.1111/jrh.12410</a>
- 37. Smith, L.H., Petosa, R.L. & Laurent, D. (2020). Efficacy of "Mentoring to Be Active" on weight loss, body mass index, and body fat among obese and extremely obese youth in rural Appalachia. The Journal of Rural Health, 36, 77-87. <a href="https://doi.org/10.1111/jrh.12410">https://doi.org/10.1111/jrh.12410</a>
- 38. Papageorgiou, A., Fisher, C. & Cross, D. (2022). "Why don't I look like her?" How adolescent girls view social media and its connection to body image. BMC Women's Health, 22(261), 1-13. <a href="https://doi.org/10.1186/s12905-022-01845-4">https://doi.org/10.1186/s12905-022-01845-4</a>
- 39. Marta-Simões, J., Tylka, T.L. & Ferreira, C. (2022). Adolescent girls' body appreciation: influences of compassion and social safeness, and association with disordered eating. Eating and Weight Disorders Studies on Anorexia, Bulimia and Obesity, 27, 1359–1366. https://doi.org/10.1007/s40519-021-01274-6

## Pages 21 - 23: STEM

- 40. Retnowati, S., & Subanti, S. (2020). The STEM Approach: The Development of Rectangular Module to Improve Critical Thinking Skill. International Online Journal of Education and Teaching, 7(1), 2-15. Setyawati, R. D., Pramasdyahsari, A. S., Astutik, I. D., Nusuki, U., Aini, S. N., Arum, J. P., ... & Zuliah, N. (2022). Improving Mathematical Critical Thinking Skill through STEM-PjBL: A Systematic Literature Review. International Journal of Research in STEM Education, 4(2), 1-17.
- 41. National Science Board, National Science Foundation. 2021. The STEM Labor Force of Today: Scientists, Engineers and Skilled Technical Workers. Science and Engineering Indicators 2022. NSB-2021-2. Alexandria, VA. Available at https://ncses.nsf.gov/pubs/nsb20212.
- 42. Craig, M., & Horton, D. (2009, March). Gr8 designs for Gr8 girls: a middle-school program and its evaluation. In Proceedings of the 40th ACM technical symposium on Computer Science education (pp. 221-225). Rodriguez, J., Butt, S., & Fredericks, T. (2014, December). Pre-college activities to promote positive perception of engineering and engineering technology careers. In 2014 International Conference on Interactive Collaborative Learning (ICL) (pp. 715-719). IEEE.
- 43. JobsOhio. (n.d.). *Innovation districts*. JobsOhio. <a href="https://www.jobsohio.com/en/programs-services/innovation/innovation-districts">https://www.jobsohio.com/en/programs-services/innovation/innovation-districts</a>
- 44. Martinez, A., & Christnacht, C. (2021). Women making gains in STEM occupations but still underrepresented. United States Census Bureau, 26.
- 45. Martinez, A., & Christnacht, C. (2021). Women making gains in STEM occupations but still underrepresented. United States Census Bureau, 26.
- 46. Sultan, U., Axell, C., & Hallström, J. (2019). Girls' Engagement with Technology Education: A Scoping Review of the Literature. Design and Technology Education, 24(2), n2.
- 47. Sterling, A. D., Thompson, M. E., Wang, S., Kusimo, A., Gilmartin, S., & Sheppard, S. (2020). The confidence gap predicts the gender pay gap among STEM graduates. Proceedings of the National Academy of Sciences, 117(48), 30303-30308.
- 48. Sterling, A. D., Thompson, M. E., Wang, S., Kusimo, A., Gilmartin, S., & Sheppard, S. (2020). The confidence gap predicts the gender pay gap among STEM graduates. *Proceedings of the National Academy of Sciences*, *117*(48), 30303-30308.
- 49. Sterling, A. D., Thompson, M. E., Wang, S., Kusimo, A., Gilmartin, S., & Sheppard, S. (2020). The confidence gap predicts the gender pay gap among STEM graduates. *Proceedings of the National Academy of Sciences*, *117*(48), 30303-30308.
- 50. Archer, L., DeWitt, J., Osborne, J., Dillon, J., Willis, B., & Wong, B. (2010). "Doing" science versus "being" a scientist: Examining 10/11-year-old schoolchildren's constructions of science through the lens of identity. Science Education, 94(4), 617–639. https://doi.org/10.1002/sce.20399
- 51. Stoeger, H., Duan, X., Schirner, S., Greindl, T., & Ziegler, A. (2013). The effectiveness of a one-year online mentoring program for girls in STEM. Computers & Education, 69, 408-418.

- 52. Stoeger, H., Duan, X., Schirner, S., Greindl, T., & Ziegler, A. (2013). The effectiveness of a one-year online mentoring program for girls in STEM. Computers & Education, 69, 408-418.
- 53. Stoeger, H., Duan, X., Schirner, S., Greindl, T., & Ziegler, A. (2013). The effectiveness of a one-year online mentoring program for girls in STEM. Computers & Education, 69, 408-418.
- 54. Schilling, M., & Pinnell, M. (2019). The STEM gender gap: An evaluation of the efficacy of women in engineering camps. Journal of STEM Education, 20(1), 37–45. Retrieved from https://www.jstem.org/jstem/index.php/JSTEM/article/view/2346
- 55. Schilling, M., & Pinnell, M. (2019). The STEM gender gap: An evaluation of the efficacy of women in engineering camps. Journal of STEM Education, 20(1), 37–45. Retrieved from https://www.jstem.org/jstem/index.php/JSTEM/article/view/2346
- 56. Hughes, R., Schellinger, J., & Roberts, K. (2021). The role of recognition in disciplinary identity for girls. Journal of Research in Science Teaching, 58(3), 420–455.
- 57. Girl Scout Research Institute. 2022. The Impact of Girl Scout STEM Programming. Retrieved from www.girlscouts.org/content/dam/gsusa/forms-and-documents/about/research/GSUSA\_GSRI\_2022\_The-Impact-of-Girl-Scout-STEM-Programming-Full-Report.pdf

## Data in tables and charts:

Chart: Women in select STEM occupations: Replicated from the Society of Women Engineers at <a href="https://swe.org/research/2024/employment">https://swe.org/research/2024/employment</a>. Sources: Corbett, C., & Hill, C. (2015). Solving the Equation: The Variables for Women's Success in Engineering and Computing. American Association of University Women. 1111 Sixteenth Street NW, Washington, DC 20036. U.S Bureau of Labor Statistics (2024). Employed persons by detailed occupation, sex, race, and Hispanic or Latino ethnicity:2023, 2013,2003. <a href="https://www.bls.gov/cps/cpsaat11.htm">https://www.bls.gov/cps/cpsaat11.htm</a>