

# S. MASON GARRISON

Greene, Room 438 | Wake Forest University  
www.smasongarrison.com | garrissm@wfu.edu

## APPOINTMENTS

### Wake Forest University

Assistant Professor, Quantitative Methods, Department of Psychology

July 2019 - Present

## EDUCATION

### Vanderbilt University, Peabody College

Ph.D in Psychological Sciences – Quantitative Methods

August 2020

Certificate in Experimental Education

Fitting Problems: Evaluating Model Fit in Behavior Genetic Models

Advisor: Joseph L. Rodgers

M.S. in Psychological Sciences

December 2016

Quinn Exchange Fellow, University of British Columbia

Summer - Winter 2015

Summer Scholar, ICPSR, University of Michigan

Summer 2014

### Washington University in St. Louis

A.B in Economics & Psychology, *magna cum laude*

May 2013

## INTERESTS

Methods      Genetically-Informed Designs • Non-Twin Models • R Programming • Structural Equation Modeling

Substance      Behavior Genetics • Health Inequity • Individual Differences • Longevity/Aging • Socioeconomic Disparities

## ADMINISTRATION

Director. R Computing Lab

Jul 2019 - Present

Co-Director. Kelly/Connolly Longitudinal Marriage Study on Personality and Aging

Dec 2012 - Present

Lab Coordinator. Strube Social Behavior Lab, WUSTL

Oct 2012 - Jul 2013

## SELECT AWARDS & HONORS

National Science Foundation Graduate Research Fellowship (\$138,000)

2015 - 2020

Vanderbilt Graduate Honor Fellowship (\$50,000)

2013 - 2018

Peabody & Vanderbilt Travel Grants (\$10,000)

2013 - 2018

SMEP Student Travel Award (\$1,500)

2016

SMEP Workshop Travel Awards (\$2,000)

2014; 2016

SPSP Diversity Fund Graduate Travel Award

2015

SPSP Graduate Travel Award *Declined*

2015

Peabody Dean's Fellowships (\$10,000)

2013; 2015

UBC Quinn Exchange Fellowship (C\$3,000)

2015

Tennessee Psychological Association, 3<sup>rd</sup> Place Undergraduate Poster Competition

2014

ICPSR Jerome M. Clubb Scholarship (\$4,000)

2014

Peabody Dean's Summer Scholarships (\$5,334)

2013; 2014

Robert Hogan Family Foundation Travel Grant (\$1,200)

2013

Hayek Fund for Future Scholars

2013

WUSTL Latin Honors

2013

*Sigma Xi* Science Honors Society

2013

## GRANT ACTIVITY

2. Co-I (8/15/2021 – 7/31/2024) The National Institute on Aging (NIA), RF1-AG073189: "Quantifying the contributions of mitochondrial DNA to Alzheimer's Disease and related conditions of aging"; Alex Burt, PI, Michigan State University, Department of Psychology. (total costs:\$1,542,903; subcontract PI \$  $\approx$  250,000 ).
1. Consultant (2019 - 2022): Understanding Employment Trajectories of Racially Minoritized Engineering PhDs. (NSF:EDA-Eng Diversity Activities; 1916534), Ebony McGee, PI, Vanderbilt University, Department of Teaching and Learning. (total costs: \$593,957).

## PUBLICATIONS

11. Schweinsberg, M., Feldman, M., Staub, N., ..., **Garrison, S. M.**, ..., & Uhlmann, E.L. (2021). Radical dispersion in empirical results when independent scientists operationalize and test the same hypothesis with the same data. *Organizational Behavior and Human Decision Processes*. doi:10.1016/j.obhdp.2021.02.003
10. Hunter, M., **Garrison, S. M.**, Burt, A., & Rodgers, J. L. (2021). The Analytic Identification of Variance Component Models Common to Behavior Genetics. *Behavior Genetics*. doi:10.1007/s10519-021-10055-x
9. **Garrison, S. M.** & Rodgers, J. L. (2019) Decomposing the Causes of the Socioeconomic Status-Health Gradient with Biometrical Modeling. *Journal of Personality and Social Psychology*, 116(6), 1030–1047. doi: 10.1037/pspp0000226
8. Rodgers, J. L., **Garrison, S. M.**, O'Keefe, P., Bard, D., Hunter, M., & Beasley W. (2019). Responding to a 100-Year-Old Challenge from Fisher: A Biometrical Analysis of Adult Height in the NLSY Data Using Only Cousin Pairs. *Behavior Genetics*. 444–454. doi:10.1007/s10519-019-09967-6
7. The Psychological Science Accelerator Team (2018). The Psychological Science Accelerator: Advancing Psychology Through a Distributed Collaborative Network. *Advances in Methods and Practices in Psychological Science*, psyarxiv.com/785qu/
6. **Garrison, S. M.** (2018). Popular Structural Equation Modeling Programs for Behavior Genetics. *Structural Equation Modeling: A Multidisciplinary Journal*, 25:6, 972-977 doi:10.1080/10705511.2018.1493385
5. **Garrison, S. M.**, Doane, M. J., & Elliott, M. (2018). Gay and Lesbian Experiences of Discrimination, Health, and Well-Being Surrounding the Presidential Election. *Social Psychological & Personality Science*, 9(2), 131-142. osf.io/dwscm/
4. Schultz, L., Connolly, J. J., **Garrison, S. M.**, Leveille, M., Jackson, J. J. (2017). Vocational Interests Across 20 Years of Adulthood: Stability, Change, and the Role of Work Experiences. *Journal of Research in Personality*, 71, 46-56.
3. **Garrison, S. M.** & Rodgers, J. L. (2016). Casting doubt on the causal link between intelligence and age at first intercourse: A cross-generational sibling comparison design using the NLSY. *Intelligence*, 59, 139-156. doi:10.1016/j.intell.2016.08.008
2. Rodgers, J. L., Beasley, W. H., Bard, D. E., Meredith, K. M., Hunter, M., Johnson, A. B., Buster, M., Li, C., May, K. O., **Garrison, S. M.**, Miller, W. M., van den Oord, E., & Rowe, D. C. (2016). The NLSY kinship links: Using the NLSY79 and NLSY-Children data to conduct genetically-informed and family-oriented research. *Behavior Genetics*. doi:10.1007/s10519-016-9785-3
1. Jackson, J. J., Connolly, J. J., **Garrison, S. M.**, Leveille, M. M., & Connolly, S. L. (2015). Your friends know how long you will live: A 75-year study of peer-rated personality traits. *Psychological Science*, 26(3), 335-340. doi:10.1177/0956797614561800

## SOFTWARE

denotes WFU \*undergraduate\* or †graduate† student co-author

6. Lyu, X.<sup>†</sup> & **Garrison, S. M.** (2022). ACEsimFit: ACE Kin Pair Data Simulations and Model Fitting R package [CRAN.R-project.org/package=ACEsimFit](https://CRAN.R-project.org/package=ACEsimFit)
5. **Garrison, S. M.**, Trattner, J.\* & Ream, C. (2021). discord: Functions for Discordant Kinship Modeling R package [CRAN.R-project.org/package=discord](https://CRAN.R-project.org/package=discord)

4. Beasley, W., Rodgers, J. L., Bard, D., Hunter, M., **Garrison, S. M.**, & Meredith, K. (2020). NlsyLinks: Utilities and kinship information for research with the NLSY R package [CRAN.R-project.org/package=NlsyLinks](https://CRAN.R-project.org/package=NlsyLinks)
3. **Garrison, S. M.**, Hunter, M., Trattner, J.<sup>\*</sup>, & Burt, A (2020). BGmisc: Miscellaneous Behavior Genetic Functions R package [CRAN.R-project.org/package=BGmisc](https://CRAN.R-project.org/package=BGmisc)
2. RegExTypoFix Development Team (2020). Regular Expression Typographical Error Fixer for AutoWikiBrowser. [en.wikipedia.org/wiki/Wikipedia:AutoWikiBrowser/Typos](https://en.wikipedia.org/wiki/Wikipedia:AutoWikiBrowser/Typos)
1. **Garrison, S. M.** (2020). MasonMisc: Mason's Miscellaneous Functions R package [github.com/smasongarrison/MasonMisc](https://github.com/smasongarrison/MasonMisc)

## PRESENTATIONS

denotes WFU \*undergraduate\* or †graduate† student co-author

### Invited Talks

7. **Garrison, S. M.** (May 2023). Data Science for Psychologists. Invited Workshop to be given at Association for Psychological Science
6. **Garrison, S. M.** (Nov 2021). More Challenges in Evaluating Model Fit for Behavior Genetic Models: Model Identification, Saturation, and Bears ... Oh My! Talk given at the Quantitative Methods Speaker Series, Department of Psychology, Arizona State University on Zoom.
5. **Garrison, S. M.** (Jan 2021). Challenges in Evaluating Model Fit for Behavior Genetic Models: Model Identification, Saturation, and Bears ... Oh My! Talk given at the Quantitative Methods Brownbag, Department of Psychology, The University of California, Davis on Zoom.
4. **Garrison, S. M.** (Jan 2020). Using families to test causal claims without experiments. Talk given at Department of Psychology, The University of North Carolina at Greensboro in Greensboro, NC.
3. **Garrison, S. M.** (Oct 2018). Using families to test causal claims without experiments. Talk given at Department of Psychology, Wake Forest University in Winston-Salem, NC.
2. **Garrison, S. M.** (Feb 2016). Who you marry matters: Partner traits influence your own mortality. Talk given at Health Psychology Area Workshop, Department of Psychology, University of British Columbia in Vancouver, BC. [osf.io/jbf96/](https://osf.io/jbf96/)
1. **Garrison, S. M.** (Nov 2015). Who you marry matters: Partner characteristics influence your own longevity and other important outcomes. Talk given at Junior Fellows Speaker Series, St. John's College, University of British Columbia in Vancouver, BC. [osf.io/zqv5t/](https://osf.io/zqv5t/)

### Conference Talks

6. **Garrison, S. M.**, Lyu, X.<sup>†</sup>, Hunter, M., Rodgers, J. L., Smith, K., Coon, H. & Burt, S. A. (Jun 2023). Analyzing Extended Cousin Similarity to Unravel the Mystery of mtDNA and Longevity. Symposia talk to be given at Behavior Genetics Annual Meeting in Murcia, Spain.
5. **Garrison, S. M.** (Jun 2022). Diversifying the Behavior Genetic Pipeline: Pathways and Strategies for Incorporating Undergraduate Students. Talk given at Behavior Genetics Annual Meeting in Los Angeles, CA.
4. **Garrison, S. M.** & Rodgers, J. L. (Jun 2020) Fitting Problems: Evaluating Model Fit in Behavior Genetic Models. Talk given at Behavior Genetics Annual Meeting on Zoom.
3. **Garrison, S. M.** & Rodgers, J. L. (Jun 2019). Uncovering the Origins of Age at First Intercourse: Applications of an Extended-Family Behavior Genetic Model. Talk given at 2019 Biennial Association for Research in Personality Conference in Grand Rapids, MI.
2. **Garrison, S. M.**, O'Keefe, P., Hunter, M., Beasley, W., Bard, D. & Rodgers, J. L. (Jun 2018). AC'RE model: Estimating Rearing Effects without Twins Raised Apart. Talk given at Behavior Genetics Annual Meeting in Boston, MA.
1. **Garrison, S. M.** & Rodgers, J. L. (Sep 2016). Advances in discordant sibling designs from the NLSY, illustrated with SES and health. Talk given at Developmental Methods Annual Conference in Whitefish, MT.

## Invited Panelist

3. **Garrison, S. M.** (Jul 2022). Invited Panelist on Disability in a STEM Career. Disability Justice in STEM Webinar Series, iGEM (International Genetically Engineered Machine), Department of Biology, University of Rochester
2. **Garrison, S. M.** (Oct 2021). Invited Panelist on Being a Disabled Woman in Academia. Disabled Empowerment in Higher Education Month, Disabled in Higher Education.
1. **Garrison, S. M.** (Aug 2021). Invited Panelist on Team Science and Early-Career Methodologists. NSF Quantitative Research Methods for STEM Education Scholars Program, University of Maryland.

## Conference Presentations

54. Lyu, X.<sup>†</sup>, **Garrison, S. M.**, Hunter, M., Rodgers, J. L., Smith, K., Coon, H. , & Burt, S. A. (Jun 2023). A Statistical Power Analysis on mtDNA Effects Estimation. Symposia talk to be given at Behavior Genetics Annual Meeting in Murcia, Spain.
53. Hunter, M., Lyu, X.<sup>†</sup>, **Garrison, S. M.**, Rodgers, J. L., Smith, K., Coon, H. , & Burt, S. A. (Jun 2023). Modeling mtDNA Effects from Extended Pedigrees in the Utah Population Database. Symposia talk to be given at Behavior Genetics Annual Meeting in Murcia, Spain.
52. Webster, E.\* , Jennings, J. M. & **Garrison, S. M.** (Feb 2023). A Sibling Comparison of Drug Use, Education, and Cognitive Impairment. Poster presented at the SPSP Annual Meeting in Atlanta, GA.
51. Good, R.\* , Hwang, Y. R.<sup>†</sup> & **Garrison, S. M.** (Feb 2023). A Comparison of Alcohol Use Patterns in Military Siblings. Poster presented at the SPSP Annual Meeting in Atlanta, GA.
50. Blankson, A. N., Flake, J.K., **Garrison, S. M.**, Logan, J, Madison, M., Montoya, A. K., Pek, J, Rhemtulla, M., Stapleton, L, & Sweet, T. (Oct 2022). Quantitative Access and Diversity (QUAD) Squad. Talk presented at the Annual Society of Multivariate Experimental Psychology (SMEP), in Monterey, CA.
49. Lyu, X<sup>†</sup> & **Garrison, S. M.** (Jun 2022). Leveraging the China Family Panel Study: An Estimation of Height Using Preliminary Kinship Links. Talk given at Behavior Genetics Annual Meeting in Los Angeles, CA. Also, presented at First-Year Graduate Student Poster Session, Department of Psychology, Wake Forest University.
48. Thompson, S.\* & **Garrison, S. M.** (Jun 2022) Exploring Age of First Intercourse and its Relationship with Depression and Socioeconomic Status: A Sibling Comparison Model. Poster presented at Behavior Genetics Annual Meeting.
47. Milhollen, M.\* Lyu, X<sup>†</sup> & **Garrison, S. M.** (Jun 2022). The China Family Panel Study: An Opportunity to Combat WEIRDNESS in Behavior Genetics. Poster presented at Behavior Genetics Annual Meeting.
46. Good, R.\* , Hwang, Y. R.<sup>†</sup> & **Garrison, S. M.** (Jun 2022). Patterns of Alcohol Use in a Military Subsample: A Sibling Comparison Design. Poster presented at Behavior Genetics Annual Meeting in Los Angeles, CA.
45. McKinzie, L.\* , Lyu, X<sup>†</sup>, & **Garrison, S. M.** (Jun 2022) Leveraging the power of sibling data to untangle the relationship between ADHD, SES, and academic achievement. Poster presented at Behavior Genetics Annual Meeting.
44. Webster, E.\* & **Garrison, S. M.** (Jun 2022). Just Say No? – Untangling the Relationship between Education And Drug Use. Poster presented at Behavior Genetics Annual Meeting. Also, presented at Undergraduate Research Day, Wake Forest University.
43. Robertson, H.\* , Trattner, J.\* , Rodgers, J. L. & **Garrison, S. M.** (Jun 2022). Discordant-Sibling Designs on the Effects of Conscientiousness and Mental Health. Poster presented at Behavior Genetics Annual Meeting.
42. McKinzie, L.\* , Lyu, X<sup>†</sup> & **Garrison, S. M.** (Feb 2022) Exploring the relationship between parenting styles and rule-breaking with sibling comparisons. Poster presented at 2022 SPSP Annual Convention.
41. Thompson, S.\* & **Garrison, S. M.** (Feb 2022) Establishing links between multiple socio-economic factors and age of first sexual activity: A sibling comparison study using the NLSY. Poster presented at 2022 SPSP Annual Convention

40. Robertson, H.<sup>\*</sup>, Rodgers, J. L., & **Garrison, S. M.** (Jun 2021). Discordant-Sibling Designs and Applications for Differential Psychology. Pre-Recorded Mini-Presentation presented at Behavior Genetics Annual Meeting on Zoom.
39. Milhollen, M.<sup>\*</sup> & **Garrison, S. M.** (Jun 2021). Exploring the Archives: A review of Pre-Existing Longitudinal Family Studies with Life Outcomes. Pre-Recorded Mini-Presentation presented at Behavior Genetics Annual Meeting on Zoom.
38. Sims, E.<sup>†</sup>, Trattner, J.<sup>\*</sup>, & **Garrison, S. M.** (Jun 2021). Does depression lead to criminal behavior? A sibling comparison design using the NLSY. Pre-Recorded Mini-Presentation presented at Behavior Genetics Annual Meeting on Zoom.
37. Good, R.<sup>\*</sup>, Hwang, Y. R.<sup>†</sup> & **Garrison, S. M.** (Jun 2021). Liquor Legacies: The impact of parental psychopathology and young adult depression on alcohol use. Pre-Recorded Mini-Presentation presented at Behavior Genetics Annual Meeting on Zoom.
36. Hwang, Y. R.<sup>†</sup>, Trattner, J.<sup>\*</sup>, & **Garrison, S. M.** (Jun 2021). Breaking down the components of the SES-health gradient with sibling comparisons. Pre-Recorded Mini-Presentation presented at Behavior Genetics Annual Meeting on Zoom.
35. Mao, T. S.<sup>\*</sup>, Hwang, Y. R.<sup>†</sup>, Trattner, J.<sup>\*</sup>, & **Garrison, S. M.** (Jun 2021). Perspectives of Gender Roles in the Family versus Personality Traits. Pre-Recorded Mini-Presentation presented at Behavior Genetics Annual Meeting on Zoom.
34. Hwang, Y. R.<sup>†</sup> & **Garrison, S. M.** (May 2021). Exploring the Components of Socio-Economic Status and Their Relationship with Health. Poster presented at 2021 APS Annual Convention on Zoom.
33. Later, K.<sup>\*</sup>, Trattner, J.<sup>\*</sup>, & **Garrison, S. M.** (Feb 2021). Intergenerational consequences of divorce. Poster presented at 2021 SPSP Annual Convention on Zoom.
32. Mao, T. S.<sup>\*</sup>, Hwang, Y. R.<sup>†</sup>, Trattner, J.<sup>\*</sup>, & **Garrison, S. M.** (Feb 2021). Gender Roles Attitudes and Personality: A Sibling Comparison Design. Poster presented at 2021 SPSP Annual Convention on Zoom.
31. Trattner, J.<sup>\*</sup>, Later, K.<sup>\*</sup>, & **Garrison, S. M.** (Feb 2021). Vaccination and SES: Not such a simple relationship after all. Poster presented at 2021 SPSP Annual Convention on Zoom.
30. **Garrison, S. M.**, Sims, E.<sup>†</sup>, Trattner, J.<sup>\*</sup>, & Later, K.<sup>\*</sup> (Feb 2021). Causal Inference Loves Moms: Extending the Discordant Kinship Design to Parents. Poster presented at 2021 SPSP Annual Convention on Zoom.
29. Sims, E.<sup>†</sup> & **Garrison, S. M.** (Feb 2021). Examining the relationship between depression and delinquency: A sibling comparison design using the NLSY. Poster presented at 2021 SPSP Annual Convention on Zoom.
28. Later, K.<sup>\*</sup>, Trattner, J.<sup>\*</sup>, Santos, C.<sup>†</sup>, & **Garrison, S. M.** (Jun 2020). Examining the Causal Link between Divorce and Mental Health of their Offspring Using the Cross-Generational Sibling Comparison Model. Pre-recorded mini presentation presented at Behavior Genetics Annual Meeting on Zoom.
27. Trattner, J.<sup>\*</sup>, Later, K.<sup>\*</sup>, & **Garrison, S. M.** (Jun 2020). Vaccine willingness and socioeconomic status: A biometrically controlled design. Pre-recorded mini presentation presented at Behavior Genetics Annual Meeting on Zoom.
26. Hunter, M., **Garrison, S. M.**, Beasley W., O'Keefe, P., Bard, D., & Rodgers, J. L. (Jun 2019). Five ways to analyze 50,000 pairs of related persons in the National Longitudinal Survey of Youth. Talk given at Behavior Genetics Annual Meeting in Stockholm, Sweden.
25. Beasley W., Hunter, M., Bard, D., **Garrison, S. M.**, O'Keefe, P. & Rodgers, J. L. (Jun 2019). Original and Replication Research with the NLSY79 and NLSY97 Kinship Links. Talk given at Behavior Genetics Annual Meeting in Stockholm, Sweden.
24. Bard, D., Hunter, M., **Garrison, S. M.**, O'Keefe, P., Beasley W., & Rodgers, J. L. (Jun 2019). Patterns of Phenotype-Environment Correlation within Cognitive Development. Talk given at Behavior Genetics Annual Meeting in Stockholm, Sweden.
23. O'Keefe, P., **Garrison, S. M.**, Bard, D., Hunter, M., Beasley W., & Rodgers, J. L. (Jun 2019). The Mediating Impact of Cognitive Ability on the SES-Health Gradient. Talk given at Behavior Genetics Annual Meeting in Stockholm, Sweden.

22. **Garrison, S. M.** & Rodgers, J. L. (Feb 2019). Uncovering the Origins of Age at First Intercourse: Applications of an Extended-Family Behavior Genetic Model. Poster presented at 2019 SPSP Annual Convention in Portland, OR. Also, presented at Personality Processes, Functions and Dynamics Preconference.
21. Rodgers, J. L., **Garrison, S. M.**, O'Keefe, P.W., Bard, D., Hunter, M., & Beasley (Jun 2018). Responding to a 100-Year-Old Challenge from Fisher: A Biometrical Analysis of Adult Height in the NLSY Data Using Only Cousin Pairs. Talk given at Behavior Genetics Annual Meeting in Boston, MA.
20. **Garrison, S. M.** (Mar 2018). Do Commonly-Used Factor Analysis Criteria Work?: Monte-Carlo Simulations of Personality-Like Data. Poster presented at 2018 SPSP Annual Convention in Atlanta, GA.
19. **Garrison, S. M.** (Jun 2017). Effectiveness of factor enumeration rules on personality data. Poster presented at 2017 Association for Research in Personality in Sacramento, CA.
18. **Garrison, S. M.** & Rodgers, J. L. (Jan 2017). Making Causal Claims without Experiments: Advances in Discordant Sibling Designs with the SES-health Gradient. Poster presented at 2017 SPSP Annual Convention in San Antonio, TX. Also, presented at Annual Lifespan Social-Personality Preconference.
17. **Garrison, S. M.** & Rodgers, J. L. (Oct 2016). Decomposing the Causes of the SES-Health Gradient with Biometrical Modeling. Poster presented at Annual Society of Multivariate Experimental Psychology (SMEP) Graduate Student Conference in Richmond, VA.
16. **Garrison, S. M.**, Connolly, J.J., Leveille, M., & Jackson, J.J. (Jan 2016). When does personality influence the timing of divorce?: A dyadic Aalen regression of peer-rated personality over 45 years. Poster presented at Annual Meeting of the Society for Personality and Social Psychology in San Diego, CA. Also, presented at Annual Lifespan Social-Personality Preconference.
15. Zhu, J.Y., **Garrison, S. M.**, Rodgers, J. L. & Zald, D. H. (Jan 2016). Shaping Perseverance: Evidence of shared environmental effects on Grit and a task-based measure of persistence. Poster presented at Annual Meeting of the Society for Personality and Social Psychology in San Diego, CA.
14. Jackson, J.J., **Garrison, S. M.**, Connolly J.J., & Leveille, M. (Jan 2016). Longevity findings from the KCLS. Flash talk given at Annual Social Personality Health Preconference in San Diego, CA.
13. Rodgers, J. L. & **Garrison, S. M.** (Sep 2015). Do intelligent girls delay age at first intercourse?: Different results within-families versus between-families. Talk given at International Society for Intelligence Research Annual Conference in Albuquerque, NM.
12. **Garrison, S. M.** & Rodgers, J. L. (Jun 2015). Additive effects of maternal conscientiousness and general ability on infant health: Cause or Confound? Poster presented at 2015 Association for Research in Personality Conference in St. Louis, MO.
11. **Garrison, S. M.**, Hadd, A. R., & Rodgers, J. L. (Feb 2015). Impact of adolescent conscientiousness and intelligence on health at middle age: A sibling comparison approach. Poster presented at Annual Meeting of the Society for Personality and Social Psychology in Long Beach, CA. Also, presented at Annual Lifespan Social-Personality Preconference.
10. Jackson, J. J., **Garrison, S. M.**, Connolly, J. J., & Leveille, M. (Feb 2015). Using multiple perspectives to inform the association between personality and important life outcomes. Talk given at Annual Meeting of the Society for Personality and Social Psychology in Long Beach, CA.
9. **Garrison, S. M.**, Connolly, J. J., Leveille, M., & Jackson, J. J. (Feb 2015). Agreeableness-Stress interactions explored: Within couple differences partially moderate the relationship between stress and divorce. Poster presented at Annual Lifespan Social-Personality Preconference in Long Beach, CA.
8. Romick, K.,\* **Garrison, S. M.**, & Rodgers, J. L. (Nov 2014). Early book ownership: Catalyst for future reading enjoyment and achievement. Poster presented at 2014 Tennessee Psychological Association Annual Convention in Nashville, TN. *Poster awarded 3<sup>rd</sup> place in Undergraduate Poster Competition*
7. **Garrison, S. M.**, Hadd, A. R., & Rodgers, J. L. (Oct 2014). The downstream health consequences of individual differences: Evidence from a kinship modeling perspective. Poster presented at 2014 Tennessee Psychological Association Annual Convention in Nashville, TN.

6. Connolly, J. J., Leveille, M., **Garrison, S. M.**, & Jackson, J. J. (Oct 2014). Relief, regret, resilience: The long-term psychological effects of getting divorced. Paper presented at Annual Convention of the Connecticut Psychological Association in Haddam, CT.
5. **Garrison, S. M.**, Connolly, J. J., Leveille, M., & Jackson, J. J. (Jul 2014). Your friends know when you will divorce: A dyadic Cox regression of peer-rated personality. Poster presented at Annual Meeting of the European Conference on Personality in Lausanne, Switzerland.
4. Jackson, J. J., **Garrison, S. M.**, Connolly, J. J., & Leveille, M. (Jul 2014). Personality trait change in adulthood predicts health status in older adulthood. Talk given at Annual Meeting of the European Conference on Personality in Lausanne, Switzerland.
3. Rodgers, J. L., **Garrison, S. M.**, & Hadd, A. R. (Jun 2014). Intelligence and Fertility in the NLSY79 Respondents: Children of Siblings and Biometrical Models. Talk given at 2014 Behavior Genetics Association in Charlottesville, VA.
2. **Garrison, S. M.**, Connolly, J. J., Leveille, M., & Jackson, J. J. (Feb 2014). Peer-rated personality traits influence relationship duration and dissolution. Poster presented at Annual Meeting of the Society for Personality and Social Psychology in Austin, TX. Also, presented at Annual Lifespan Social-Personality Preconference.
1. Jackson, J. J., **Garrison, S. M.**, Connolly, J. J., & Leveille, M. (Feb 2014). What your friends know that you don't: Friend-rated personality predicts longevity 70 years later. Talk given at Annual Meeting of the Society for Personality and Social Psychology in Austin, TX.

### Departmental Talks & Presentations

14. Zhang, Q.<sup>†</sup>, Furr, R. M., Fleeson, W., & **Garrison, S. M.** (May 2023). A search for the extreme altruists: Initial development for the Do-Gooder Scale (DGS). Poster presented at the First-Year Graduate Student Poster Session, Department of Psychology, Wake Forest University.
13. King, M\* & **Garrison, S. M.** (Oct 2022). Disruptive Forces Related to Parental Death and Childhood Depression: A Discordant Kinship Approach. Poster presented at Undergraduate Research Day, Wake Forest University.
12. **Garrison, S. M.** (Sept 2021, Feb 2023). Double, Double Toil and Trouble...shooting Complex Problems. Talk given at Seminar in Analysis and Measurement, Department of Psychology, Wake Forest University.
11. Hwang, Y. R.<sup>†</sup> & **Garrison, S. M.** (May 2021). Breaking down the components of the SES-health gradient with sibling comparisons. Poster presented at the First-Year Graduate Student Poster Session, Department of Psychology, Wake Forest University.
10. **Garrison, S. M.** (Apr 2021). Modeling Monarchs, Mitochondria, Meiosis, Maternal Cousins, Matrices, & Mormons with Mason. Talk given at the Well-being Seminar, Department of Psychology, Wake Forest University.
9. **Garrison, S. M.** (Feb 2020). I don't go looking for Data . . . Data usually finds me. Talk given at Seminar in Analysis and Measurement, Department of Psychology, Wake Forest University.
8. **Garrison, S. M.** & Rodgers, J. L. (Nov 2018). Using families to test causal claims without experiments. Talk given at Quantitative Methods Colloquium, Vanderbilt University.
7. **Garrison, S. M.** & Rodgers, J. L. (Mar 2018). Using siblings to test causal claims without experiments. Talk given at Quantitative Methods Colloquium, Vanderbilt University.
6. **Garrison, S. M.** & Rodgers, J. L. (Apr 2017). Twins, Cousins, and Sibling-Pairs (oh my): Biometrical Applications of 42,773 Kinship Pairs. Talk given at Quantitative Methods Colloquium, Vanderbilt University.
5. **Garrison, S. M.** & Rodgers, J. L. (Apr 2016). Multivariate Biometrical Study of the Link between SES and Health Outcomes. Talk given at Quantitative Methods Colloquium, Vanderbilt University.
4. **Garrison, S. M.** & Rodgers, J. L. (Apr 2015). Smarter girls *really don't* delay sex: An extended discordant siblings model. Talk given at Quantitative Methods Colloquium, Vanderbilt University.
3. **Garrison, S. M.**, Hadd, A. R., & Rodgers, J. L. (Apr 2014). Influence of adolescent intelligence and conscientiousness on health at midlife. Talk given at Quantitative Methods Colloquium, Vanderbilt University.

2. Hadd, A. R., **Garrison, S. M.**, & Rodgers, J. L. (Apr 2014). The relationship between maternal IQ and home environment. Talk given at Quantitative Methods Colloquium, Vanderbilt University.
1. **Garrison, S. M.** & Strube, M. J. (Apr 2013). Domestic dissatisfaction: Gender differences in a multilevel model of marital satisfaction. Poster presented at Annual Psychology Honors Symposium, Washington University in St. Louis. Also, presented at Annual Undergraduate Research Symposium.

## VERY SELECT ABSTRACTS

---

2. **Garrison, S. M.** & Rodgers, J. L. (2017). Decomposing the Causes of the Socioeconomic Status-Health Gradient with Biometrical Modeling. *Multivariate Behavioral Research*, 52(1), 118-119. [osf.io/xbkja/](https://osf.io/xbkja/)
1. **Garrison, S. M.** (2013). Domestic dissatisfaction or dissatisfaction?: Gender differences in a multilevel model of marital satisfaction using prenuptial marital expectations after 20 years. *Washington University Senior Honors Thesis Abstracts*. 5, 166

## SELECT PROJECTS UNDER REVIEW & IN PREPARATION

---

### Manuscripts

14. Lyu, Xuanyu† & **Garrison, S. M.** (Revise and Resubmit), Effects of Genetic Relatedness of Kin Pairs on Univariate ACE Model Performance. *Twin Research and Human Genetics*
13. **Garrison, S. M.**, Robertson, H.\* , Trattner, J.\* , McKinzie, L.\* , Lyu, X†, & Rodgers, J. L.. (revise and resubmit) Using genetically-informed designs to test causal claims without experiments: Discordant-Sibling designs and applications. [osf.io/zpdwt/](https://osf.io/zpdwt/) *AMPPS*
12. **Garrison, S. M.** & Rodgers, J. L. (Revise and Resubmit). Fitting Problems: Evaluating Model Fit in Behavior Genetic Models. *Behavior Genetics* [10.31234/osf.io/qys83](https://doi.org/10.31234/osf.io/qys83)
11. Holtzman, N., Steirn, J., Smallwood, S., Carden, S. W., **Garrison, S. M.**, & Gesselman, A. (Revise and Resubmit) Individual Difference Correlates of Being Sexually Unrestricted Yet Declining an HIV Test. *Collabra: Psychology*
10. **Garrison, S. M.**, Good, R.\* and Webster, E.\* (Invited Under Review) Advancing Diversity in Behavior Genetics: Strategies for Incorporating Undergraduates into Student-Driven Research. *Behavior Genetics* IDEA special issue. [10.31234/osf.io/9x7wf](https://doi.org/10.31234/osf.io/9x7wf)
9. **Garrison, S. M.**, and Good, R.\* (Invited Submission) Foundations of genetically informed research, with a focus on sibling comparisons and family-based modeling. *Pathways to Research*.
8. Schaerer, ... **Garrison, S. M.**.... Uhlman (under review). On the trajectory of discrimination: A meta-analysis and forecasting survey capturing 44 years of field experiments on gender and hiring decisions Target: *OBHP*
7. Hunter, M., **Garrison, S. M.**, Beasley W., O'Keefe, P., Bard, D., & Rodgers, J. L. (full manuscript). Five ways to analyze 50,000 pairs of related persons in the National Longitudinal Survey of Youth. Target: *Psych Methods*
6. Trattner, J.\* & **Garrison, S. M.** (full manuscript). Introduction to Discord: An R package to manage, model, and simulation kinship-based designs. Target: *JOSS*
5. DeMeo, N., McCabe, K. O., ... **Garrison, S. M.**.... (full manuscript) Diversity and Inclusion in Big Five Conceptualization and Measurement. Target: *EJP*
4. Thompson, S. H. E.\* & **Garrison, S. M.** (full manuscript). Re-establishing Income and Depression as Links to Age of First Intercourse using a Sibling Comparison Model. Target: *Behavior Genetics*
3. Sims, E.† Trattner, J.\* & **Garrison, S. M.** (full manuscript). Examining the relationship between depression and delinquency. Target: *Behavior Genetics*
2. **Garrison, S. M.**, Connolly, J. J., Leveille, M., & Jackson, J. J. (in prep). As time goes by: Personality predicts the timing of divorce over 45 years. Target: *JPSP*
1. McGee, E. O., **Garrison, S. M.**, Naphan-Kingery, D. et al. (in Prep) Equity Ethic. Target: TBD



## Presentations

4. King, M.\* & **Garrison, S. M.** (submitted). Disruptive Forces Related to Parental Death and Childhood Depression: A Discordant Kinship Approach. Poster submitted to Behavior Genetics Annual Meeting in Murcia, Spain.
3. Webster, E.\*, Tyson, H.\* & **Garrison, S. M.** (submitted). Disentangling the Genetic Web of Intergenerational Substance Use, ADHD, and Impulsivity Poster submitted to Behavior Genetics Annual Meeting in Murcia, Spain.
2. Tyson, H.\*, Webster, E.\* & **Garrison, S. M.** (submitted). ADHD and The Hidden Relationship With Cannabis Use. Poster submitted to Behavior Genetics Annual Meeting in Murcia, Spain.
1. Zhang, Q.† & **Garrison, S. M.** (submitted). Helping others helps ourselves? Examining the relationship between prosociality and health with sibling comparisons. Poster submitted to Behavior Genetics Annual Meeting in Murcia, Spain.

## TEACHING

Modality: \*Blended\* †Online†

### Instructor

Methods in Psychological Research (310). Wake Forest University	Spring 2022
Data Science for Psychologists in R (703). Wake Forest University <a href="https://datascience4psych.github.io/DataScience4Psych">datascience4psych.github.io/DataScience4Psych</a>	Spring 2021*; Spring 2022 Spring 2023*
Psychological Testing (362). Wake Forest University <a href="https://r-computing-lab.github.io/psychtesting">r-computing-lab.github.io/psychtesting</a>	Spring 2020; * Spring 2021†
Personality (255). Wake Forest University <a href="https://smasongarrison.github.io/personality">smasongarrison.github.io/personality</a>	Fall 2019; Spring 2020; * Fall 2020x2*† Fall 2021; Fall 2022x2†
Introduction to Statistical Analysis (2110). Vanderbilt University	Fall 2018
Lying with Statistics. Vanderbilt Summer Academy	Summer 2017
Introduction to Applied Statistics. Vanderbilt Summer Academy	Summer 2016

### Laboratory Instructor

Introduction to Statistical Analysis. Prof. Joseph L. Rodgers, Vanderbilt	Spring 2014
Introduction to Statistical Analysis. Prof. James H. Steiger, Vanderbilt	Fall 2013

### Teaching Assistant

Introduction to Statistical Analysis. Prof. Joseph L. Rodgers, Vanderbilt	Spring 2014
Introduction to Statistical Analysis. Prof. James H. Steiger, Vanderbilt	Fall 2013
Introduction to Social Psychology. Prof. Michael J. Strube, WUSTL	Fall 2012

### Disability Support

Introduction to Statistical Analysis. Prof. Joseph L. Rodgers, Vanderbilt	Spring 2018
Introduction to Statistical Analysis. Prof. Joseph L. Rodgers, Vanderbilt	Spring 2015
Introduction to Statistical Analysis. Prof. Joseph L. Rodgers, Vanderbilt	Spring 2014

### Select Guest Lectures

Using Mplus to Estimate Heritability. Behavior Genetics Workshop, Vanderbilt	July 2017
Personality and the Lifespan. Social & Personality Development, Vanderbilt	April 2017

## SELECT EXPERIENCE

### Academic

Affiliate. Huntsman Cancer Institute, University of Utah	Aug 2022 - Present
Member. Translational Science Center, Wake Forest University	Feb 2022 - Present
User and Statistical Support, NLSY79 Kinship Links. Rodgers Lab, Vanderbilt	Feb 2014 - Jul 2019
Graduate Researcher. Rodgers Lab, Vanderbilt	Jul 2013 - Jul 2019

Research Affiliate. Jackson Personality Measurement & Development Lab, WUSTL	Jul 2013 - Jul 2019
Visiting Graduate Researcher. Biesanz Social Accuracy Laboratory, UBC	Jul 2015 - Dec 2015
Research Assistant. Jackson Personality Measurement & Development Lab, WUSTL	Aug 2012 - Jul 2013
Research Assistant. Strube Social Behavior Lab, WUSTL	Jan 2012 - Oct 2012
<b>Field Work</b>	
Visiting Researcher. Bentley Historical Library, U. of Michigan	Jul 2014
Visiting Researcher. Institute for Quantitative Social Science, Harvard	Jan 2013
Intern, Constituent Services. Senator Arlen Specter, Philadelphia, PA	Jun 2007 - Aug 2007

## SERVICE

---

### Global & National

Elected EMCR Member. IDEA Committee, Behavior Genetics Association	Feb 2023 - Present
Member, IDEA Task Force, Behavior Genetics Association	Jun 2021 - Feb 2023
Co-Organizer. Quantitative Psychology Info Session. QUAD Squad.	Oct 2020; Oct 2021; Sept 2022
Founding Member, Quantitative Access and Diversity (QUAD) Squad.	Sept 2020 - Present
<a href="#">Volunteer. Folding@home</a> : Distributed computing project for simulating protein dynamics	Mar 2020 - Present
Judge for Thompson and Rowe awards. BGA Annual meeting	Jun 2022
Member, Methodology and Data Analysis Committee. Psychological Science Accelerator	Sep 2017 - Jun 2021
Mentor Lunch. ARP Biannual Meeting	Jun 2019
Peer-Advisor. SPSP Annual Meeting	Feb 2019
Student Conference Organizer. SMEP 2017 Meeting	Jun 2017 - Jun 2018
Email Support, On-Site. Div 5, Teaching Statistics Conference	Mar 2017
Volunteer, On-Site. SPSP Annual Meeting	Jan 2016
Volunteer, Conference Transportation. SMEP 2014	Oct 2014

### University & Department

Member, Policies and Procedures. Dept. of Psychology, WFU	Aug 2022 - Present
Member, Faculty Advising Board, Center for Learning, Access, and Student Success, WFU	Feb 2022 - Present
Major Advisor, Dept. of Psychology, WFU	Jan 2022 - Present
Library Coordinator, Dept. of Psychology, WFU	Sep 2021 - Present
Organizer, Seminar in Analysis and Measurement (SAM), Dept. of Psychology, WFU	Sep 2021 - Present
Member, Archie Award Selection Committee, Wake Forest College, WFU	<i>April 2023</i>
Co-Organizer, Seminar in Analysis and Measurement (SAM), Dept. of Psychology, WFU	Jul 2020 - Aug 2021
Member, Social Media Committee. Dept. of Psychology, WFU	Sep 2019 - Jul 2022
Member, Job Search Instructions Working Group. Dept. of Psychology, WFU	May 2020
Co-Leader, Moving Forward: Listening Session on Climate and DEI, Dept. of Psychology, WFU	Nov 2019
Panelist, Path to Graduate School Panel. Dept. of Psychology, UBC	Sep 2015
Panelist, Doctoral Application Advice. Dept. of Psychology & Human Dev., Vanderbilt	Apr 2014; Mar 2015
Panelist, Graduate Application Advice. Psychological Sciences Honors Program, Vanderbilt	Sep 2014
Panelist, Graduate School Admissions. <i>Psi Chi</i> , Vanderbilt	Sep 2013
President, Undergraduate Economics Association. Dept. of Economics, WUSTL	May 2011 - Dec 2011
Treasurer, Undergraduate Economics Association. Dept. of Economics, WUSTL	May 2010 - May 2011
Marketing Executive, Undergraduate Economics Association. Dept. of Economics, WUSTL	Aug 2009 - May 2010

**Editorial Boards**

Graduate Advisor (General Statistics), Undergraduate Journal of Psychology, UBC

Sep 2015 - May 2018

Graduate Advisor (Health Psychology), Undergraduate Journal of Psychology, UBC

Sep 2015 - May 2018

**Ad Hoc Reviewer****Journals**

Behavior Genetics  
 Canadian Journal of Behavioural Sciences  
 European Journal of Personality  
 Group Processes & Intergroup Relations  
 Intelligence  
 Journal of Family Issues  
 Journal of Family Psychology  
 Journal of Open Psychology Data  
*Journal of Open Source Software*  
 Journal of Personality Assessment  
 The R Journal  
 Journal of Research in Personality  
 Structural Equation Modeling: A Multidisciplinary Journal  
 Psicologia: Reflexão e Crítica  
 Psychological Methods  
 Psychometrika  
 Translational Issues in Psychological Science

**Awards**

APA Div 44 Trans Research Award · APSSC Student Research Award · BGA Thompson Award · BGA Rowe Award · BGA Rising Star Award · SPSP Graduate Student Poster Award · SPSP Graduate Student Travel Award

**Conferences**

AERA Annual Meeting SIG-Cognition and Assessment · AERA Annual Meeting SIG-Test Validity Research and Evaluation · SPSP Annual Meeting Undergraduate Posters · SPSP Annual Meeting Single Presentation · SPSP Reviewing Inside the Grant Panel · SPSP Annual Meeting Symposia

**Grants**

APSSC Student Grant Competition · National Science Foundation Graduate Research Fellowship Program

**COMMITTEES****Master's Thesis Advisor**

3. Zhang, Qilin (*Spring 2023-Present*)
2. Lyu, Xuanyu (*2021-Present*)
1. Hwang, Yoo Ri (*2020-2022*)

**Master's Thesis Committee Member**

denotes mentored †graduate‡ student advisee

6. Lyu, Xuanyu † (May 2023), *Pedigree Structures Impact Statistical Power of Mtdna effects Estimation*. Wake Forest
5. Lacey, Conor (May 2023), *Bayesian Approaches to Quantifying the Practical Impact of Measurement Non-invariance: Extending  $d_{MACS}$* . Wake Forest
4. Hwang, Yoo Ri† (Jul 2022), *A Comparison of Regression-Based and Multilevel Approaches in Dyadic Analysis with a Categorical Explanatory Predictor*. Wake Forest
3. Slipetz, Lindley (May 2021), *The Robustness of Ebic Glasso to Distributional Misspecification*. Wake Forest

2. Yi, Ye Dam (Apr 2021), *An Investigation of The Emotion Account of Self-Other Differences in Decisions Under Risk*. Wake Forest
1. Demaske, Alana (Jul 2020), *Personal Growth Initiative, Need Satisfaction, and Subjective Well Being: Testing a Process Model*. Wake Forest

### Major Area Paper Committee Member

denotes mentored †graduate† student advisee

6. Lyu, Xuanyu† (Oct 2022), *Power Issues of Heritability Estimation in Behavior Genetics and an Illustration: Genetic Relatedness and Sample Size Influence ACE Model Power*. Wake Forest
5. Lacey, Conor (Oct 2022), *Effect Sizes for Measurement Non-Invariance: A Review*. Wake Forest
4. Hwang, Yoo Ri† (Oct 2021), *The SES-health Gradient: Comparing Two Approaches*. Wake Forest
3. Yi, Ye Dam (Oct 2020), *Feeling for Another: The Role of Emotions on Self-Other Differences in Risk-Involving Decisions*. Wake Forest
2. Slipetz, Lindley (Sep 2020), *The Structure of Depression Symptomatology: A Comparison of Factor and Network Analyses*. Wake Forest
1. Demaske, Alana (Oct 2019), *Examining the construct validity and functional utility of personal growth initiative in a war-affected Sri Lankan sample*. Wake Forest

### Undergraduate Honors Thesis Advisor

2. King, Mary (2022-Present), *Disruptive Forces Related to Parental Death and Childhood Depression* Wake Forest
1. Good, Rachel (2021-2022), *Alcohol Use Patterns in a National Military Subsample* Wake Forest

### Undergraduate Honors Thesis Committee Member

3. Qian, Tom (Apr 2016), *Appraisal Structure Universality*. Vanderbilt
2. Sparks, Sloane (Apr 2014), *Gender Differences in Emotional Intelligence: Positive Emotions & Appraisal Theory*. Vanderbilt
1. Fuller, Lydia (Apr 2014), *GED Student Achievement Trajectories and Predictors: Using the Latent Class Growth Model to Understand Heterogeneous Learning Patterns*. Vanderbilt

### Mentored URECA Fellows

1. Webster, Emma (Summer 2022), *Just Say No? - Untangling The Relationship Between Education and Drug Use* Wake Forest

## OUTREACH

### Administration

Moderator. <a href="#">AcademicPsychology</a> , <a href="#">Reddit.com</a>	Mar 2019 - Present
Limited Moderator. <a href="#">Science</a> , <a href="#">Reddit.com</a>	May 2015 - Present
Moderator. <a href="#">GradAdmissions</a> , <a href="#">Reddit.com</a>	Jan 2015 - Present
Limited Moderator. <a href="#">AskScience</a> , <a href="#">Reddit.com</a>	Sep 2014 - Present

### Ongoing Engagement

Member, <a href="#">Disabled Academic Collective</a>	Jan 2022 - Present
Member, <a href="#">Heterodox Academy</a>	Aug 2020 - Present
Data Doctor, <a href="#">WikiTree</a>	Apr 2018 - Present
Member, Union of Concerned Scientists	Jan 2017 - Present
Science Verified User. <a href="#">Science</a> , <a href="#">Reddit.com</a>	May 2015 - Present
Science Panelist, Quantitative Psychology. <a href="#">AskScience</a> , <a href="#">Reddit.com</a>	Dec 2013 - Present

Science Panelist, Individual Differences. <a href="#">AskSocialScience</a> , <a href="#">Reddit.com</a>	Dec 2013 - Present
Member, Statistics without Borders	Dec 2016 - Oct 2020
Member, Women in Science & Engineering. School of Medicine, Vanderbilt	Dec 2013 - Jun 2019
Member, Peabody Queeries (Q.Ed). Peabody College, Vanderbilt	Aug 2013 - Jun 2019

### Panelist & Participation

Panelist, Quantitative Psychology Info Session. QUAD Squad.	Oct 2020; Oct 2021; Sept 2022
Panelist, Science AMA: Graduate School. <a href="#">AskScience</a> , <a href="#">Reddit.com</a>	Oct 2015
Volunteer, Genome BC. Community Science Celebration, Science World	Sep 2015
Panelist, Expert AMA: Psychology & Social Work. <a href="#">AskSocialScience</a> , <a href="#">Reddit.com</a>	Apr 2014

### PARTICULAR SKILLS

Select Certifications	Microsoft Office Access Specialist • Microsoft Office Excel Specialist
Select Coding	AHK • HTML • $\text{\LaTeX}$ • Lua • Python • R • SQL
Languages	English • Latin
Very Select Software	Adobe Creative Cloud (e.g, Premiere) • BUGS/JAGS • Git • Javascript • LISREL • Mplus • OBS • Qualtrics • R • SAS • SPSS/PSPP • Tableau

### REFERENCES

#### Joseph L. Rodgers, Ph.D

Professor *Emeritus*  
Department of Psychology & Human Development  
Vanderbilt University, Peabody College

#### Kristopher J. Preacher, Ph.D

Lois Autrey Betts Professor  
Department of Psychology & Human Development  
Vanderbilt University, Peabody College

#### Lewis R. Goldberg, Ph.D

Professor *Emeritus*  
Department of Psychology  
University of Oregon

#### Jeremy C. Biesanz, Ph.D

Associate Professor  
Department of Psychology  
The University of British Columbia

#### Joshua J. Jackson, Ph.D

Saul and Louise Rosenzweig Associate Professor  
Department of Psychology  
Washington University in St. Louis