The Great Smoky Mountains Study of Rural Aging (GSMS-RA) A Data Source to Study Rural America

> V. Joseph Hotz Duke University

Southeastern Applied Labor Workshop

April 30, 2021



 The Great Smoky Mountains Study (GSMS) was designed to examine development of, need for, and use of mental health services in children and adolescents in an area of southeastern f U.S.











Duke

- The Great Smoky Mountains Study (GSMS) was designed to examine development of, need for, and use of mental health services in children and adolescents in an area of southeastern f U.S.
- Study began in 1993 with sample of 1,420 children (ages 9-13) including 350 from Eastern Band Cherokee Indian tribe.





- The Great Smoky Mountains Study (GSMS) was designed to examine development of, need for, and use of mental health services in children and adolescents in an area of southeastern f U.S.
- Study began in 1993 with sample of 1,420 children (ages 9-13), including 350 from Eastern Band Cherokee Indian tribe.
- Interviewed periodically over 25+ years & collected measures of health, demographics, labor market activities (in adulthood) & family income & wealth (see list of domains of data collected)



Domains of Data Collected across Waves of GSMS

Individual

History of physical development; BMI History of illness and disability Health risk behaviors, HIV and AIDS risk Pubertal development; early puberty Peer and other social relations Relations in school or work Relations out of school or work Gang membership Deviant peer group Leadership, rejection, neglect Sexual relationships, marriage, parenting **Relations with other adults** Relations with teachers Relations with employers Relations with other adults **School functioning** School work, attainment Higher education, work, income Age at school leaving, graduation **Higher education** Work history Income, income/need ratio **Experience of trauma and violence** Physical abuse and neglect Sexual abuse **Other traumatic events**

Delinguency and crime Self and parent reports of offending Juvenile court records Adult criminal records Other Guns in home Other life events Spirituality and religious faith Need for MH care Use of services for MH problems Family Family of origin Number and age of other children in home Stability of family structure Teenage parents **Family of residence** Marital history Number and ages of children Stability of family structure **Family relations** S's relations with parental figures S's relations with siblings Relationship of parenting figures to S **Relations between parenting figures** Relations with spouse and children **Family resources** Income, sources, and stability

Income, sources, and stability Amount of education **Employment and unemployment** Health and insurance Access and barriers to care Family burden **Psychiatric and criminal history** Family history of arrest for crime Family history of drug problems Family history of psychiatric disorder Family history of suicide Current maternal depression Other characteristics of family of origin Guns in the home Spirituality and religious faith Attitudes and barriers to use of MH services School and post-school educational settings Per-student expenditure Ranking on standardized tests Official reports of violence S's perception of violence **Community characteristics** Number and training of professionals S's perception of neighborhood Neighborhood crime: Census and FBI data

- The Great Smoky Mountains Study (GSMS) was designed to examine development of, need for, and use of mental health services in children and adolescents in an area of southeastern f U.S.
- Study began in 1993 with sample of 1,420 children (ages 9-13) from western North Carolina (see map), including 350 from Eastern Band Cherokee Indian tribe.
- Interviewed periodically over 25+ years & collected measures of health, demographics, labor market activities (in adulthood) & family income & wealth (see list of domains of data collected)
- GSMS & GSMS-RA increasingly focused on understanding life & health in rural America into mid-life.



Health Concerns for Rural America





Use of Opioids & Heroin by GSMS Participants -Any nhOpioids ---Weekly nhOpioids **Dercent** 20 15 -Any Heroin 24-26 Age



Economic Conditions in Rural America

- While employment in U.S. over 2007-2017 grew by 5.6%, it declined by 4.5% in GSMS area.
- In 2018, median household income was 28% lower in GSMS area than for U.S.
- Economic Challenges even greater on Eastern Band Cherokee Indian reservation in GSMS area. Over 2014-2018:
 - Employ/Pop ratio was almost 10 percentage pts. lower than for U.S. (47.7% vs 57.4%)
 - Poverty rate was 6 percentage pts. higher than for U.S. (20.2% vs 14.1%)



Cash Transfer Quasi-Experiment for Cherokee Indians in GSMS



- In 1996, casino(s) opened on reservation, providing each member of Tribe with \$4-\$5K annual unconditional cash transfer, or ~20% increase in HH income.
- Studies (published in AER, AEJ-Applied, etc.) have examined effects of these increases in "permanent income" on:
 - **Participants'** obesity, educational attainment, criminality, self-reported lifespan, civic participation, emotional & behavioral health, personality traits
 - Their parents' employment, substance abuse, etc.
- Casinos closed March thru May 2020, but reopened after that, albeit at limited capacity & in defiance of NC Governor's order. Consequences for transfers & impact on health, well-being & local labor market topic for further research!

New Study: GSMS of Rural Aging (GSMS-RA)

- GSMS-RA a 5-Year study recently funded by National Institute on Aging (NIA).
- PIs: William Copeland (U of Vermont); Kathleen Cagney (UChicago); Kenneth Dodge (Duke) and Joe Hotz (Duke)
- Continued focus on collecting measures of mental, physical & behavioral health, including substance abuse.
- New objectives in GSMS-RA:
 - What are "useful" measures of "despair"? Which one's are predictive of substance abuse & other dimensions of health?
 - What is the analogue of the Gig Economy in rural America (not Uber!) and what role does informal and unstable work play in health in rural America.
 - Use measures (of health, economics, etc.) in GSMS-RA that are comparable to those in existing national studies like Add Health, PSID, NLSY, HRS, and other studies.



Interest in GSMS-RA & Suggestions for Data Collection?

• Please email me at: v.joseph.hotz@duke.edu

