

# RESEARCH HIGHLIGHT

## Longitudinal Studies III: Rochester Youth Development Study



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In our previous newsletters (see [here](#) and [here](#)), we introduced our readers to a variety of longitudinal research projects. In this third part of our ongoing series, we highlight an internationally renowned project that tracked youth in Rochester, NY: the Rochester Youth Development Study (RYDS).

### Introduction

In 1986, a group of researchers from the University at Albany's School of Criminal Justice began tracking the lives of 1,000 school children living in Rochester, NY. The researchers visited these youth several times starting at age fourteen and continuing across the next several years. They recorded detailed information about the youth's lives and behaviors. They also collected data from their parents, schools, criminal justice agencies, etc. Directed by Dr. Terence Thornberry and co-directed by Dr. Marvin Krohn, and Dr. Alan Lizotte, the purpose of the Rochester Youth Development Study, or RYDS, was to understand when and why those children would engage in serious delinquent behavior.

In the following decades, this project became an immensely rich source of data on the complex causes of juvenile delinquency. As the first 1,000 children aged and began having children themselves, it expanded to include so-called 'inter-generational' patterns. The children of the first participants were enrolled in the research when they turned two years old. This new iteration became known as RIGS – the Rochester Inter-Generational Study. Now spanning three generations – beginning with the parents of the original children, known as 'G1', and ending with the original participants' children, known as 'G3', the study represents an enormous archive of information on the lives of this group.<sup>1</sup>

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<sup>1</sup> RYDS has received funded from a wide variety of Federal agencies including the Office of Juvenile Justice and Delinquency Prevention (OJJDP), the Department for Health and Human Services (DHHS), the National Institutes of Health (NIH), the National Institute on Drug Abuse (NIDA) and the National Science Foundation (NSF) (Thornberry, Farnworth, Krohn, & Lizotte, 1988).

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I had the opportunity to speak with Dr. Krohn and Dr. Lizotte ahead of this issue. I'm grateful to be able to share some of their insights with our readers!

## What makes RYDS Unique?

From the very beginning, the RYDS researchers knew they wanted to design the best possible study of delinquent behaviors among youth. That research interest guided fundamental decisions about the design of the study. Even before they began collecting data, the RYDS team knew that delinquent behavior was likely to be more common among some of their prospective participants than others. Young men living in high crime neighborhoods were far more likely to report delinquent behavior than were others. Because the study was focused on serious delinquency, the researchers wanted to make sure they got the richest possible data on those participants.

RYDS used a fascinating, albeit complex, sampling technique. In forming their sample, they deliberately “over-represent[ed] youth at high-risk for serious delinquency and drug use.” (Thornberry, Krohn, & Lizotte, n.d.). Specifically, youth living in census tracts with high crime rates were included in the sample at higher rates. By proportionally sampling with consideration given to the crime rates where the children lived, the research team had a better chance to observe the behaviors of interest (i.e. serious delinquency) and, by keeping track of these proportions, they could weight their findings to be equivalent to the whole Rochester 7<sup>th</sup> and 8<sup>th</sup> grader populations (personal communication, Lizotte, 2020).<sup>2</sup>

This sampling approach was much different to what other comparable research was using at the time (personal communication Krohn, 2020) in that they oversampled high crime areas and males in order to have a better opportunity to examine the correlates of serious crime. Of course, there were tradeoffs. By sampling girls at a lower rate, RYDS faces limitations when studying issues like gang membership among female youth.

As is the case with all longitudinal studies, the project faced challenges. Across the several years of data collection, around 15% of research participants dropped out of the study—a phenomenon known as *attrition*. Some causes of attrition are participants

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<sup>2</sup> To get slightly technical, through the mathematical properties that relate samples to populations, sample weights allow analysts to make an unrepresentative sample comparable to the population through multiplication. There are entire classes about sampling techniques and how to address these analytical issues. A nerdy but cool thing about the RYDS analyses: they found the same results when they did and did not use the sample weights. They attribute this quirk to the differential birthrates in the census tracts that is correlated with the crime rate in the census tracts (personal communication, Lizotte, 2020). This is not to say that higher birthrates cause crime, of course; causality is more nuanced than that.

physically moving away from the area of the research project, withdrawing consent, being imprisoned, dying, among others. Retaining 85% of a sample over such a long period of time is impressive, however. Drs. Krohn and Lizotte attribute some of this success to providing financial incentives and prizes to the participating families (personal communication, Krohn 2018, Lizotte 2020). They also developed relationships between the research team and the families in the study. Sometimes, the project co-directors reported, the families would contact the researchers directly for follow-up interviews. The research team took great pains to engage the families at different points in the research, sharing the findings as they went through newsletters and meetings. Therefore, they attribute their low attrition rate to a combination of persistence and relationship-building with their research participants.

## Notable Findings

Dr. Krohn identified the long-term impact official intervention and gang membership can have on an individual's life outcomes as among the important project findings. Relatively small and limited experiences can have lasting consequences. Therefore, individuals' decisions early in their lives can be critical for life course outcomes. Additionally, it is essential for policymakers to take great care in determining how the system responds to youth behaviors (personal communication, 2020). These long-term findings were possible because the same individuals were interviewed over and over, to chart their life course events well beyond adolescence.

Dr. Lizotte relayed one finding that illustrates exactly the kind of information we can learn from intergenerational studies compared to any other type of design. In his research, he asks: what influences gun carrying by teenagers? In the original RYDS sample (or G2, per above), researchers found that peer relationships changed a teenager's gun carrying at a certain age or span of ages. Dr. Lizotte further asked, is this intergenerational? Meaning, does it matter if your parents carried a gun when they were teenagers? The findings suggest that it does not. G3s (or the sons and daughters of the participants who were 14 years old in the 1980s), when interviewed at the same ages that their parents had been interviewed, reported that their gun-carrying behavior was influenced by their contemporary peers and *not* by their parents. For policy purposes, this suggests that the problem of teenagers with guns is simpler and less entrenched than it would be if there was an intergenerational effect. The ability these types of data have to examine "linked lives," specifically how changes in one generation relate to changes in the next generation, is powerful (Krohn, personal communication, 2020).

There have been recent review pieces that summarize other RYDS' findings and impacts, including a recently published book chapter by Thornberry, Henry, Krohn, Lizotte, and Nadel (2018) titled "Key findings from the Rochester Intergenerational Study." [ICPSR](#) also has a trove of published research that you can search through that used the data from the project.

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## Next Month

In March, our *Research Highlight* will take a break from the longitudinal series to cover a different subject area. This series will be back soon!

Until next time,

Alysha

**What do you want to see in future Research Highlights?** Let us know [here](#).

## REFERENCES

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