

# Smartphone tracking shows fear affects where youth spend time

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Youth spend less time in their neighborhoods if area residents have a high fear of crime, according to a new study that used smartphones to track kids' whereabouts.

Researchers found that adolescents aged 11 to 17 spent over an hour less each day on average in their neighborhoods if residents there were very fearful, compared to kids from areas perceived as being safer. Higher fear of crime was linked to high-poverty neighborhoods.

This is the first study to use smartphone data to track a large, diverse sample of young people to determine where they spend their time, said Christopher Browning, lead author of the study and professor of sociology at The Ohio State University.

"It is clear that kids who live in high-poverty areas are spending less time in their neighborhoods and that is linked to a collective fear of crime," Browning said.

"This has never been tested before with GPS data that tracks movements on a minute-by-minute basis."

Browning presented the research Aug. 14 in Montreal at the annual meeting of the American Sociological Association.

This preliminary data is from the Adolescent Health and Development in Context study, which Browning leads. The study is examining the lives of 1,402 representative youths living in 184 neighborhoods in Franklin County, Ohio. This includes the city of Columbus and its suburbs.

In this study, which was conducted April 2014 to July 2016, participating adolescents were given a smartphone that they kept with them for one week. The GPS function on the phone reported their location every 30 seconds.

Overall, results showed youth spent an average of 52 percent of their waking time each day at home, 13 percent in their neighborhoods, and 35 percent outside of their neighborhoods. About 27 percent of the time

when they were not at home while awake, they were in their neighborhoods.

All caregivers of youth in the study were asked to rate how afraid they were to walk in their neighborhood.

Results showed that caregivers' ratings were only weakly connected to how much time their own children spent in the neighborhood. But the collective fear ratings of all the caregivers who lived in or regularly visited a neighborhood was strongly linked to the amount of time kids spent close to home.

"Once enough people stop spending time in a neighborhood because they are afraid, others will withdraw, whether they are afraid or not," Browning said.

"If teens go to the local playground and there's no one to play pickup basketball with, they will go outside the neighborhood to find their friends, or spend more time at home."

The study looked at whether the presence or absence of amenities like schools, community centers and stores could explain why youth in high-poverty neighborhoods spent less time there. But this factor explained little when compared to the collective fear of crime.

"Many cities have social services like recreation centers that are targeted for disadvantaged neighborhoods," Browning said.

"But our results suggest these amenities may be underutilized because young people are withdrawing from the neighborhood. Whether they are afraid to go there or just following their friends elsewhere, young people spend less time in disadvantaged neighborhoods."

Upcoming studies using this same data set will examine whether [kids](#) in disadvantaged [neighborhoods](#) spend their extra time at home, or outside of their area.

Provided by The Ohio State University

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