The Impact of Maternal Employment on Child Health: Evidence from China’s Labor Policy Reform

Young Jo\textsuperscript{1} and Qing Wang\textsuperscript{2}

\textsuperscript{1}Department of Economics, University of Illinois at Urbana-Champaign \textsuperscript{2}Peking University HSBC Business School

\section*{Introduction}
In this paper, we estimate the causal impact of maternal employment on childhood obesity in China.

\begin{itemize}
\item **Background**
- (1)In China, prevalence of overweight and obesity almost doubled from 14.6\% to 21.8\% in the past decade.
- (2)Labor Policy Reform In 1995 reduced the number of working days from 6 to 5 days a week.
- (3)The reform only changed maternal labor supply, not earned income.

\item **Contribution**
- (1)One of the few studies to tackle endogeneity issue
- (2)First study on China
- (3)First study to attempt to disentangle the effect of income from the effect of maternal time spent with children
\end{itemize}

\section*{Method}

\begin{itemize}
\item **Data**
China Health and Nutrition Survey from 1989-2000

\item **Methodology**
Difference-in-Difference (DD) with China’s labor policy reform in 1995 as a treatment

- Treatment: children whose mothers are wage workers in a public or a private sector

- Control: children whose mothers are self-employed workers

\end{itemize}

\begin{table}[h]
\centering
\begin{tabular}{lcccc}
\hline
 & Obese & 50th & Underweight & ZBMI \\
 & (divided by 1,000) & (0.002) & (0.004) & (0.004) & (0.005) & (0.015) & (0.006) & (0.007) & (0.022) \\
Days per week worked & 0.002** & 0.002* & 0.003** & 0.003 & 0.004*** & 0.003 & 0.003 & 0.004 & 0.012 \\
(3) & (0.013) & (0.019) & (0.028) & (0.048) & (0.021) & (0.031) & (0.031) & (0.016) & (0.009) \\
Days per week worked & 0.003*** & 0.005*** & -0.002 & 0.004** & 0.003 & 0.008*** & -0.003 & 0.022** & 0.027** \\
(3) & (0.001) & (0.002) & (0.002) & (0.003) & (0.003) & (0.005) & (0.005) & (0.003) & (0.018) \\
Child FE & X & X & X & X \\
Region Indicators & X & X & X & X \\
\hline
\end{tabular}
\caption{The impact of maternal employment on children’s adiposity: OLS estimates}
\end{table}

\section*{Results}

**OLS estimates**

- An increase of one maternal work day per week is associated with 0.4 p.p. increase in her child being obese or 0.02\% of standard deviation increase in BMI.
- Result remains consistent even with the inclusion of child FEs.

**DD estimates**

- If a mother worked less because of the policy change, probability of her child being obese increases by 2 p.p. or BMI increases by 0.2\% of standard deviation.

**Hypothesis for the difference in estimates**

- (1)Mothers who spend more time with children may encourage children to eat more, which results in their weight gain
- (2)Reduction in income could have generated weight gain among children

\section*{Conclusions}

- (1)OLS estimates confirm previously accepted belief that maternal employment has an adverse impact on children’s weight.
- (2)DD estimates show that a reduction in maternal labor supply could be harmful for children’s weight.
- (3)Future research efforts can be directed at understanding the mechanism behind such a counterintuitive finding.