LOSING A PARENT: A CERTAIN DEATH?
The Effect of Parent’s Death on Post-Neonatal and Child Mortality in Utah: 1850-1920
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Purpose
• To examine the effect of a parent’s death on infant and child mortality up to the age of 5, utilizing data from The Utah Population Database (UPDB).

Hypothesis
• The effect of the death of the mother is highest during the first year, and declines as age of the child increases;
• The effect of the death of the father is rather limited during the first year of life, but increases later in childhood;
• The death of the mother has a greater effect on infant and child mortality than the death of the father;
• Infants and children of whom the parents died had better survival chances when they had older siblings, who could take care of them.

Methodology
• We use a Cox Model with non-proportional effects (t in months).
• The independent variables include: number of older siblings; mother’s death, father’s death, gender of children, twins.
• We constructed time varying covariates for the death of the parents.
• To test different effects of the death of parents between infant and children we treated time-varying covariates for parent’s death as non-proportional effects.
• We adjusted possible correlations by clustering on the household.
• We test for the replacement effect of siblings with an interaction term between the number of older siblings and parent’s death.

Sample Construction
• Children born between 1850 and 1920 up to age 5.
• We only included children from the first marriages.
• We excluded children who die during the first month.
• Sample size: 374,849 observations:
  (Male: 51.15%, Female: 48.85%)

Findings
• During the infancy years, the death of either parent has a major impact on the survival chances of infants. The death of the mother has a greater effect than the death of the father. After infancy, the effect of parent’s death decreases.
• When a parent dies, having siblings who are at least 10 years older decreases the hazard of the child dying before age 5. This suggests that older siblings can replace the loss of a parent.