

# Research Report Title (Generated Using PlusMind ChatGPT)

Author Name  
Texas A&M University  
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## Abstract

This study investigates how the season of birth, influenced by school start age policy and compulsory school attendance laws, affects educational attainment and earnings. Children born early in the year generally start school at an older age and thus complete fewer years of schooling. The research uses quarter of birth as an instrumental variable to isolate the impact of education on earnings, revealing that compulsory schooling significantly increases educational attainment and earnings. The findings suggest that compulsory schooling laws keep potential dropouts in school and that the extra schooling leads to higher earnings.. (Content generated using PlusMind ChatGPT. Editable on [www.plusmind.ai](#))

## Introduction

This paper explores the impact of compulsory schooling laws on education and earnings in the United States. It uses a natural experiment arising from the varying school start ages for children born in different months. These laws require students to stay in school until a certain age, thus affecting the length of their education. The study analyzes data from several decennial censuses to establish a relationship between season of birth and educational attainment, showing that children born early in the year generally have lower education levels than those born later. (Content generated using PlusMind ChatGPT. Editable on [www.plusmind.ai](#))

## Literature Review

The literature on the impact of age at school entry on educational achievement is mixed. While some studies suggest that older students perform better, most of these studies analyze small samples and focus on test scores rather than graduation rates. Additionally, previous research often does not adequately control for the effects of age. Despite these limitations, there

## Methodology

The study employs a two-stage least squares model to estimate the impact of compulsory schooling on earnings, controlling for age-related trends. The model includes education, covariates, and dummy variables indicating quarter and year of birth. The primary instrument used is the quarter of birth, interacted with year of birth dummies. This approach helps identify the effect of education by exploiting the variation in education levels across different birth quarters. The methodology is designed to address potential biases in ordinary least squares estimates due to omitted variables correlated with both education and earnings. (Content generated using PlusMind ChatGPT. Editable on [www.plusmind.ai](#))

## Findings

This study adopts the instrumental variable method. The correlation table of the 2SLS of the 1970 Census is as follows: (Content generated using PlusMind ChatGPT. Editable on [www.plusmind.ai](#))

Table: Regression Results Summary			
Independent Variable	Coefficient	Standard Error	P-value
Intercept	13.315	0.007	i 0.001***
QOB_1	-0.1795	0.033	i 0.001***
QOB_2	-0.1313	0.033	i 0.001***
QOB_3	-0.0061	0.033	i 0.001***
Intercept	4.2383	0.320	i 0.001***
EDUC	0.0797	0.028	0.004**
Intercept	4.2330	0.007	i 0.001***
EDUC_hat	0.0802	0.001	0.004**
Observations	82790		
F-statistic (EDUC)	16.16		

## Discussion

The study finds remarkable similarities between OLS and TSLS estimates of the monetary return to education, suggesting minimal impact from omitted variables or measurement error. This evidence challenges the significance of omitted variables bias in the estimated returns to education, particularly around the compulsory schooling level. The results support the notion that compulsory schooling laws effectively compel students to attend school longer, leading to higher wages due to extended schooling. This reinforces the effectiveness of compulsory schooling laws in influencing educational attainment and subsequent earnings. (Content generated using PlusMind ChatGPT. Editable on [www.plusmind.ai](#))

## Conclusions

This research utilizes the natural experiment created by variations in season of birth to analyze the impact of compulsory school attendance on education and earnings. It demonstrates that individuals born early in the year, who start school at an older age, often attain less education due to earlier eligibility to drop out. The study reveals a small but significant effect of season of birth on educational attainment, affirming the influence of compulsory schooling laws. These laws not only extend the duration of schooling but also lead to higher wages, indicating their effectiveness in shaping educational and economic outcomes. (Content generated using PlusMind ChatGPT. Editable on [www.plusmind.ai](#))

## References

Levis, Marc, and Patricia Griffin. "An Explanation for the Season of Birth Effect in Schizophrenia and Certain Other Diseases." Psychological Bulletin 89 (1981): 589-596. Nevey, Whitney. "Generalized