# Exploring the Relationship between Parental Work Schedules and their Children's School Attendance

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Background

- Student absenteeism is an "ecological" issue, shaped by a combination of individual, school, family, and contextual factors (Gottfried & Gee, 2017; Lenhoff & Singer, 2022; Opara et al., 2022; Sugrue et al., 2016)
  - A parent's work schedule is an "exosystemic factor" (Singer et al., 2021)
- Why does it matter?
  - Student attendance has a significant association with academic (e.g., achievement, graduation) and socioemotional outcomes
  - Regular school attendance can also be viewed as a proxy for family/child wellbeing

Associations with Parent Work Schedule

Child
behavior

Nonstandard
Schedules

School
outcomes

Child
health

Parent
stress

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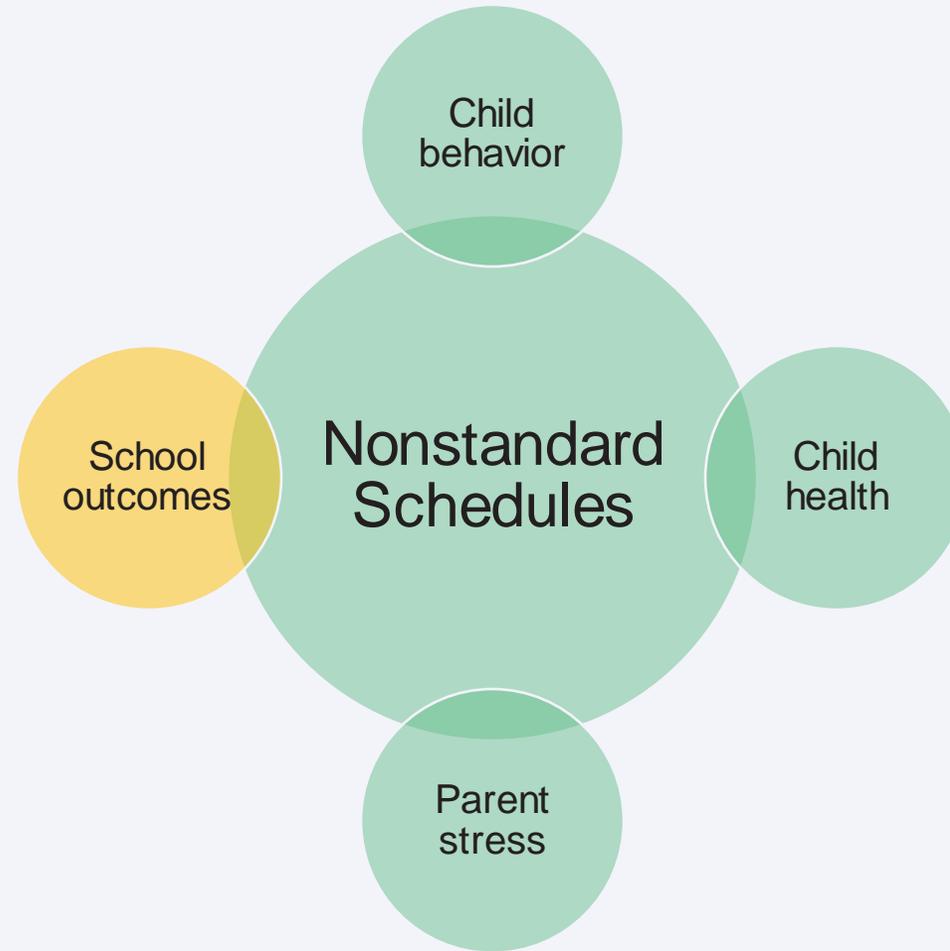
Connections between Schedule and School

- NS Schedules
  - Worse school achievement & behavior (Hsueh & Yoshikawa, 2007)
  - Less expressive language at 36 months (Han, 2005; Odom et al., 2013)
  - Mixed findings regarding impact on academic achievement (Han & Fox, 2011; Cho & Coulton, 2016; Baker 2016)

- Schedule Flexibility
  - Inflexibility associated with child behavior problems (Pilarz, 2021)
  - Inflexibility increases parent stress (Nomaguchi & Johnson, 2016)
  - Inflexibility creates barriers in food preparation and feeding, arranging childcare, time with children, and school engagement (Haley-Lock & Posey-Maddox, 2016; Agrawal et al., 2018; Henly et al., 2006; Katras et al., 2015)

Research Questions

(1) What is the relationship between parents' self-reported work schedule (e.g., standard, nonstandard) and their children's attendance and chronic absenteeism?

(2) How do these relationships differ by family structure and, in two-parent households, the various combinations of both parents' work schedules?

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Method

- **Sample**: Detroit parents, random stratified sampling approach to select students within 3 school types (DPSCD neighborhood, DPSCD magnet, charter)
- **Instrument**: Online parent survey in January 2022 focused on socioeconomic conditions of families
  - Linked with child's school records from 2021-22 school year, including attendance
- **Analysis**: Linear probability regression models predicting attendance and chronic absence (10% or more days missed)
  - All family structures
  - Two-parent family structures
  - One-parent family structures

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Parental Schedule Configurations

One Parent Families:
- Standard (ref group)
- Non-Standard

Two Parent Families
- Both standard (ref grp)
- Both nonstandard
- One standard, one nonstandard
- One standard, one unemployed
- One nonstandard, one unemployed

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Measures

- IV: parent work schedules within family structure
- DVs: chronic absenteeism and average daily attendance rates
- CVs: highest occupational prestige score, household income-to-poverty ratio, total number of children in household, total number of adults in household, grade band, special education, parent race, and student gender

Variable	% (n)
Parent Work Schedules x Family Structure	
Both Nonstandard	3% (39.39)
Both Standard	13% (170.69)
One Standard, One Nonstandard	9% (118.17)
One Standard, One Unemployed	10% (131.30)
One Nonstandard, One Unemployed	5% (65.65)
One Parent Standard	40% (525.20)
One Parent Nonstandard	20% (262.60)
Parent Race/Ethnicity	
Black	77% (1011.01)
Hispanic	16% (210.08)
Other Race	7% (91.91)
Student Characteristics	
Elementary School Student	50% (656.50)
Middle School Student	21% (262.60)
High School Student	28% (367.64)
Special Education Student	8% (105.04)
Female	50% (656.50)
Chronically Absent	70% (919.1)

	Mean (Range)
Highest Employed Parent Prestige Score	37.95 (29.51-43.69)
Income	$29,357.85 ($20,154.65-41,794.86)
Income-to-Poverty Ratio	1.04 (0.87-1.40)
Number of Children in Household	2.91 (2.65-3.64)
Number of Adults in Household	1.71 (1.39-2.17)

Sample Demographics

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Findings

Partnership for Education, Equity & Research

All Families Model

Variable	(1) Chronically Absent	(2) Chronically Absent	(3) Attendance Rate	(4) Attendance Rate
Schedule x Family Structure				
Both Standard (reference group)	-	-	-	-
Both Nonstandard	0.281***(0.065)	0.197**(0.070)	-0.071**(0.025)	-0.047+(0.025)
One Standard, One Nonstandard	0.030(0.063)	-0.057(0.061)	-0.006(0.016)	0.011(0.016)
One Standard, One Unemployed	-0.041(0.066)	-0.079(0.064)	0.008(0.017)	0.019(0.017)
One Nonstandard, One Unemployed	-0.125(0.094)	-0.191*(0.083)	-0.002(0.025)	0.028(0.024)
One Parent Standard	0.163***(0.046)	0.016(0.047)	-0.067***(0.014)	-0.022(0.014)
One Parent Nonstandard	0.253***(0.048)	0.064(0.050)	-0.115***(0.017)	-0.045*(0.018)
Household Characteristics				
Highest Employed Parent Prestige Score	-	-0.000(0.001)	-	0.000(0.000)
Income-to-Poverty Ratio	-	-0.141***(0.016)	-	0.048***(0.005)
Total Number of Children	-	0.006(0.008)	-	-0.002(0.003)
Total Number of Adults	-	-0.024(0.017)	-	0.015*(0.006)
Parent Race/Ethnicity				
Black	-	0.245***(0.072)	-	-0.072***(0.018)
Hispanic	-	0.044(0.079)	-	-0.024(0.019)
Student Characteristics				
Middle School	-	-0.007(0.033)	-	-0.007(0.011)
High School	-	0.041(0.031)	-	-0.058***(0.013)
Special Education		-0.002(0.050)		0.002(0.018)
Female	-	-0.034(0.026)	-	0.005(0.009)
Constant	0.578***	0.676***	0.850***	0.800***
Adjusted R²	0.059	0.157	0.069	0.174
N	1,400	1,313	1,400	1,313

*p<0.05, **p<0.01, ***p<0.001,+p<0.10.

In the full model, both parents working a nonstandard schedule was associated with 19% greater likelihood of chronic absence.

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In the full model, one parent working a nonstandard schedule and one being unemployed was associated with 19% <u>lower</u> likelihood of chronic absence.

One-Parent Families Model

Variable	(5) Chronically Absent	(6) Chronically Absent	(7) Attendance Rate	(8) Attendance Rate
Schedule				
One Parent Standard (reference group)	-	-	-	-
One Parent Nonstandard	0.090**(0.030)	0.052(0.032)	-0.048***(0.015)	-0.019(0.014)
Household Characteristics				
Highest Employed Parent Prestige Score	-	0.002(0.001)	-	0.000(-0.001)
Income-to-Poverty Ratio	-	-0.165***(0.018)	-	0.052***(0.007)
Total Number of Children	-	0.010(0.009)	-	-0.008+(0.005)
Total Number of Adults	-	-0.016(0.018)	-	0.014+(0.007)
Parent Race/Ethnicity				
Black	-	0.236+(0.138)	-	-0.075+(0.038)
Hispanic	-	0.225(0.150)	-	-0.057(0.043)
Student Characteristics				
Middle School	-	-0.013(0.039)	-	-0.009(0.014)
High School	-	0.049(0.034)	-	-0.081***(0.019)
Special Education	-	-0.027(0.059)	-	0.018(0.020)
Female	-	-0.027(0.030)	-	0.001(0.013)
Constant	0.741***	0.614***	0.783***	0.810***
Adjusted R²	0.009	0.132	0.016	0.144
N	867	800	867	800

*p<0.05, **p<0.01, ***p<0.001,+p<0.10.

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The model including only one-parent families yielded no significant results after adding covariates.

Two-Parent Families Model

*p<0.05, **p<0.01, ***p<0.001,+p<0.10.

Variable	(9) Chronically Absent	(10) Chronically Absent	(11) Attendance Rate	(12) Attendance Rate
Schedule				
Both Standard (reference group)				
Both Nonstandard	0.270***(0.069)	0.182*(0.078)	-0.067*(0.028)	-0.045(0.028)
One Standard One Nonstandard	0.009(0.065)	-0.083(0.062)	0.002(0.016)	0.018(0.016)
One Standard One Unemployed	-0.041(0.066)	-0.069(0.064)	0.008(0.017)	0.017(0.017)
One Nonstandard One Unemployed	-0.145(0.099)	-0.188*(0.087)	-0.002(0.027)	0.017(0.025)
Household Characteristics				
Highest Employed Parent Prestige Score	-	-0.003(0.002)	-	0.001+(0.001)
Income-to-Poverty Ratio	-	-0.104***(0.029)	-	0.040***(0.008)
Total Number of Children	-	-0.004(0.015)	-	0.008+(0.004)
Total Number of Adults	-	-0.074+(0.038)	-	0.027**(0.010)
Parent Race/Ethnicity				
Black	-	0.294***(0.083)	-	-0.073***(0.021)
Hispanic	-	-0.023(0.093)	-	0.000(0.022)
Student Characteristics				
Middle School	-	-0.006(0.061)	-	-0.009(0.017)
High School	-	0.024(0.056)	-	-0.025(0.016)
Special Education	-	0.121(0.085)	-	-0.055(0.036)
Female	-	-0.057(0.047)	-	0.018(0.013)
Constant	0.578***	0.889**	0.850***	0.721***
Adjusted R²	0.029	0.143	0.015	0.161
N	514	496	514	496

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Similar to the full model, both parents working nonstandard was associated with <u>greater</u> likelihood of chronic absence.

Meanwhile one working nonstandard and one unemployed was associated with <u>lower</u> likelihood of chronic absence.

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Limitations

- Population may not be generalizable
- Schedule variable did not measure variation within day shift
- We could not measure social capital (e.g., availability and reliability of social support network to support attendance)
- Data collected during the official COVID-19 pandemic

Key Finding

- We found a relationship between parental work schedules and children's chronic absence
    - Two-parent families, both nonstandard → more likely to be chronically absent
    - Two-parent families, one nonstandard, one unemployed → less likely to be chronically absent
- In contrast to most of the literature, in some cases nonstandard schedules and unemployment – which we connected to time flexibility - could be associated with positive outcomes

Implications

- Schedule flexibility may be a form of economic capital families can use to improve children's attendance
- Schools might consider a broader set of solutions in and out of school to improve student attendance
  - How do bell schedules align with parent work schedules?
  - Is advocacy in chambers of commerce for alignment or flexibility possible?
  - Can before- and after-care be expanded?
  - Is advocacy for fair scheduling policies possible?
- Aspects of parental employment (e.g., schedule) might be important to conceptualizations of student SES
- Work-related inequities tied to race and class may contribute to the racial and economic education gap

Thank you!

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