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Research Article

Three Midwest Rural School Districts' First Year Transition to the Four Day School Week: Parents' Perspectives

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The four-day school week is a concept that has been utilized in rural schools for decades to respond to budgetary shortfalls. There has been little peer-reviewed research on the four-day school week that has focused on the perception of parents who live in school districts that have recently switched to the four-day model. This study collected data from 584 parents in three rural Missouri school districts that have transitioned to the four-day school week within the last year. Quantitative statistical analysis identifies significant differences in the perceptions of parents classified by the age of children, special education identification, and free and reduced lunch status. Strong parental support for the four-day school week was identified in all demographic areas investigated; however, families with only elementary aged children and families with students receiving special education services were less supportive than other groups.

Review of Literature

Rural schools in the United States face a variety of challenges. In addition to financial stresses facing many rural schools, the three most commonly cited challenges of rural education relate to the recruitment, retention (Monk, 2007), and training of high quality teachers (Parsley & Barton, 2015). In order to meet these challenges, increasingly rural schools are exploring innovative practices. While these challenges are not necessarily unique to rural schools, rural schools, especially those in places with fixed or declining enrollment, are increasingly adopting an idea to meet these challenges that has been utilized in rural America for years: using a four-day school week (Hill & Heyward, 2015).

While there are exceptions, nationally the move toward four-day school weeks has been driven mainly in small rural, and often isolated, school districts (Heyward, 2018). The number of rural schools utilizing the four-day school week is growing. In 2011, a survey completed by the *Washington Post* found that at least 292 school districts nationwide use the four-day school week, more than double the number estimated two years earlier (Layton, 2011). By 2018, the number of four-day school week districts in the United States had grown to at least 550 districts with every state west of the Mississippi having four-day school week districts, excluding only Arkansas (Heyward, 2018). Most of

the existing research on the four-day school week has been conducted by state departments of education or individual school districts. "Though over 100 districts across the country operate on a four-day week, there is a lack of peer-reviewed research on the topic" (Plucker, Cierniak, & Chamberlin, 2012, p. 5).

The mountain west states have seen a proliferation of four-day school districts. In Idaho, over 9% of the student population attend schools with four-day weeks (Richert, 2016), and 42 of Idaho's 115 public school districts now follow a four-day a week school calendar (Cummings, 2015). In Colorado, more than half of the state's public school districts follow a four-day school week (French, 2017). However, since most of the schools using the shortened school week are small rural school districts, only a small percentage of Colorado's students attend four-day week schools (Lefly & Penn, 2011). In Missouri, during the 2018-2019 school year, 33 of the states' 518 school districts utilized a four-day school week; all of these schools are small rural districts. Only four of the Missouri shortened school week districts have a K-12 enrollment of more than 1,000 students with 20 having fewer than 500 students in grades K-12.

Four-day School Week: A Cost-Saving Initiative

The move to a four-day school week is often driven by the need to save money during state or

school district budget constraints (Anderson & Walker, 2015; Bitton, 2016; Cummings, 2015; Donis Keller & Silvernail, 2009; Henton, 2015; Herring, 2010; Juneau, 2011; Plucker et al., 2012; Sagness & Salzman, 1993; Tobias, 2016). A study completed by the nonpartisan Education Commission of the States, however, determined the maximum financial savings experienced by a school district implementing the four-day school week was just over five percent (Griffith, 2011), savings have typically been less (Rosenberg, 2015).

The move to a four-day school week during hard financial times is not new in the United States; a shortened school week was used during the Great Depression of the 1930's in hard-hit communities (Donis Keller & Silvernail, 2009). In the 1970's, the United States gained a renewed interest in reducing the number of school days due to increased heating and transportation costs during the 1973 Arab oil embargo (Cummings, 2015). In 2009, while facing a budget crisis, Hawaii officials implemented seventeen mandatory "Furlough Fridays" for state public schools, implementing a temporary four-day school week statewide (Herring, 2010). Some research findings point to public opposition to the four-day school week to save money (Ray, 2003); however, new reasons are now given by school leaders for a shift to longer but fewer school days in American schools (Dam, 2006; DenOuden, 2016).

Four-Day School Week in Rural Missouri

In 2009, the state of Missouri enacted legislation giving school districts an option of retaining a five-day school week (174 days) or transitioning to a four-day school week (142 days). Legislation mandated the four-day school week have a minimum of 1044 hours of instruction ("Four-day school week authorized," 2009; Missouri Department of Elementary and Secondary Education, 2013; Rowland, 2014). This change gave Missouri school districts the flexibility to choose the school day calendar that best fit the local context. Since the 2010-2011 school year, 33 of Missouri's 518 public school districts have implemented the four-day school week with only one school district returning to the traditional five-day school week (Levin, 2016). The one school district that did return to the traditional five-day school week cited the increase in school day length and the perceived negative impact longer instructional days had on elementary grade children (Newman, Pavolva, & Luna, 2016).

In Missouri schools, the most commonly cited reasons for the shortened school calendar have focused more on recruitment and retention of highly qualified staff and increased professional development demands rather than budgetary reasons. One Missouri superintendent expressed a common reflection about the four-day school week in her rural district, "I've heard that education majors at local universities check for jobs at our district first because of our four-day schedule" (Turner & Finch, 2017, p. 11). Another Missouri superintendent added, "I've had more than one of our experienced staff members tell me that they have considered offers from other districts but have decided to stay with us because of the extra day off per week" (Turner & Finch, 2017, pp. 11-12). Rural Missouri superintendents often struggle to compete in the teacher salary market; those that use the four-day school week model consider it an innovation that helps them attract and keep good teachers.

Concerns for Special Student Populations

Nationwide, several school districts with predominately low-income students that had moved to four-day school weeks have returned to the traditional five-day calendar out of concern that fewer school days negatively impact low-income students (Cummings, 2015). While larger more affluent communities might have resources outside of school to help support students on their "day off", in rural four-day school districts there is a concern often voiced by educators that small, rural, isolated school districts do not have the resources to support students and families outside of the school setting (Cummings, 2015; Turner, Finch, & Uribe-Zarain, 2017). These concerns often directly relate to the lack of childcare and the loss of free or reduced-price student meals that are provided by the federal National School Lunch Program (Callahan, 2011; Turner et al., 2017). Student behavior during the "day off" may also be a concern for policymakers. A study of data from Colorado has indicated that the switch from a five-day to a four-day school week increases juvenile arrests for property crimes by 73 percent (Fischer & Argyle, 2016).

Four-day School Week and Academic Impact

Most research related to the four-day school week suggests it does not have a clear impact on student academic performance (Beesley & Anderson, 2007; Donis Keller & Silvernail, 2009; Giger, 2012;

Hewitt & Denny, 2011; Lefly & Penn, 2011; Ryan, 2009). A comprehensive analysis of the academic performance of students in four-day school districts in Colorado indicated a positive relationship between the four-day week and performance in elementary reading and mathematics (Anderson & Walker, 2015). Anderson and Walker (2015) concluded in Colorado when evaluating fourth and fifth-grade math and reading scores, “there is little evidence that switching to a four-day week harms student performance” (p. 20). There has been some evidence, however, that while short-term academic benefits may be obtained by switching to longer days and shortened school weeks, over time, the improved academic results may wane (Tharp, Matt, & O’Reilly, 2016).

Establishing a school culture of collaboration and teacher leadership is strongly tied to highly successful rural schools (Musselman, Crittenden, & Lyons, 2014). Schools that implement the four-day school week claim the additional days off for students results in additional time for teachers and administrators to collaborate and focus on educational outcomes. Within the rural school context, rural school teachers and administrators often have “dual roles”, uncommon in larger schools. With rural educators “spread thin,” they often do not have time for planning, communication, and collaboration with others (Willis & Templeton, 2017). Since most teachers in smaller rural schools live outside the rural districts where they teach (Ulferts, 2016), afterschool collaboration time can be burdensome and one less travel day with the four-day week can be perceived as a benefit.

In Missouri schools, the four-day districts typically have at least one full day a month to provide opportunities for academic collaboration and professional development. In the past, this collaboration time was often provided in “half-day” teachers’ meeting days or at the end of the regular school day. This additional time and consistency of teacher professional development efforts in four-day districts could lead districts to provide better planned, more focused professional development that meets the individual teacher needs, which may result in improved academic performance.

Parental View of Four-day School Week

There have been few studies lead by independent researchers that evaluate the opinions of parents about a transition to a four-day school week. In the research that has been conducted, the availability of

childcare on the additional day out of school was identified as a concern (Beesley & Anderson, 2007; Dam, 2006; Donis Keller & Silvermail, 2009; Hale, 2007; Juneau, 2011; Plucker et al., 2012; Reeves, 1999; Yarbrough & Gilman, 2006). There has also been some concern identified related to the four-day school calendar’s appropriateness for at-risk or special needs students (Beesley & Anderson, 2007; Dam, 2006; Juneau, 2011; Plucker et al., 2012; Reinke, 1987). School administrators and teachers cite the perceived challenge of the extended days off for students with learning disabilities (Hale, 2007; Turner et al., 2017). The extended length of the school day, especially pertaining to younger students, has also been identified as a frequent concern of some parents and educators (Beesley & Anderson, 2007; Donis Keller & Silvermail, 2009; Juneau, 2011; Newman et al., 2016; Reinke, 1987).

Dam (2006) reported that parent satisfaction surveys distributed by the Colorado Department of Education indicated 80 to 90% of community members preferred to continue the four-day week in school districts where the model had been operating for several years. One of the conclusions of this study was that opposition to the four-day school week came from community members who were not directly associated with schools. Furthermore, in a recent survey of all 32 schools in Montana using the four-day school week, constituents liked the change to a four-day school (Juneau, 2011).

Current research that focuses on the four-day school week has often been conducted by state departments of education and local school districts. This research has failed to investigate the topic, in a scientific manner, related to the perceptions of parents from differing demographic groups. Specifically, past research has found the need for further investigation of parental concern from specific demographic groups like households with students receiving special education services, low-income families, and single-parent households. Also, past research has identified a need for research in four-day school week districts that focuses on parent perception based on the age of their children currently enrolled in school.

Purpose of the study

The purpose of this study was to explore parents’ perceptions about the four-day school week model within their first year of implementation in three rural school districts. More specifically, the research questions are:

1. How do parents in three rural school districts feel about a four-day school week at the end of the first year of implementation?
2. Are there differences in parents' perceptions given different demographic situations (children receiving special education services, or free or reduced lunch; single parent families; children in lower or upper grades)?

Method

Participants

Data collection for this study was completed during the 2015-2016 school year. Three independent rural public school districts participated in the study; all three schools were nearing the end of the first year of usage of a four-day school week. The three school districts are located within sixty miles of each other, within two neighboring counties. The first school district had a K-12 student enrollment of approximately 500 students, the second had an enrollment of approximately 650 students, and the third had an approximate K-12 enrollment of 1,000 students. All households with students enrolled in any of the three school districts received parent/family perception surveys by mail as part of this study; 2,186 surveys were mailed. A total of 584 families (21% response rate) responded to the family perception survey of the four-day school week.

Thirty-eight percent of the responding families had one child enrolled in school at the time of the survey; 35% percent had two children enrolled, 17% had three, and the rest had four or more children in school. Of the 584 families, 159 families (26%) reported having only elementary school children, 175 (30%) only middle or high school children, and 250 (44%) were families with both elementary school and upper grades children. Eighteen percent of the families said their children spent most of their week in a single parent home, 46% reported their child received free or reduced lunches, and 14% stated their children received special education services.

Procedure

Survey administration was conducted by the principal investigator in cooperation with the three participating rural school districts. The school district mailed the survey to all households with children enrolled within their school districts. Postage paid

return envelopes were provided to the families with surveys being returned to the principal investigator. Schools used automated phone calling systems and school email messages to encourage parents to complete the survey and return it to the principal investigator. Data were entered manually into a password-protected database. The cleaned data were then exported via a comma-separated values file used for statistical analyses.

Instrument

The 13-item survey instrument was developed based on the review of four-day school week literature. The questionnaire was reviewed by the cooperating school district school administrators. The final version of the survey included the changes from feedback from three administrators of the three rural school districts. Changes refined the wording and structure of the survey. The four-day school week family perception survey included demographic information such as number of students enrolled in the school district and the grade(s) they attended, information on free and reduced lunch, single parent homes, and special education services. The 13 items about families' perceptions had a Likert-type scale (1= *Disagree*, 2= *Somewhat disagree*, 3= *Not sure*, 4= *Somewhat agree*, and 5= *Agree*). Items were grouped in three sets: impact, concerns, and approval. Impact items referred to the impact the change in school week structure had on families and schools. The concerns section included questions about potential drawbacks (i.e., childcare and safety, for example) of the four-day week model. Finally, the two last items were about family support or lack thereof of the shorter week model.

Data Analysis

Researchers are aware of the debate on whether Likert-scales responses should be analyzed as interval-level data or ordered-categorical data (Clason & Dormody, 1994). However, for five-point items with Likert-type scales, the use of *t* test is acceptable, and results are comparable to its non-parametric counterpart (De Winter & Dodou, 2010). SPSS 23 was used for data entry and analysis. The researchers first calculated frequency distribution of the responses and then calculated *t* tests to compare the perception of different groups.

Table 1
Frequency distribution of responses (%) and descriptive statistics of impact items

	<i>n</i>	<i>D</i>	<i>SD</i>	<i>NS</i>	<i>SA</i>	<i>A</i>	<i>m</i>	<i>sd</i>
1. The four-day school week has had a positive impact on my family	540	11.1	7.0	8.7	13.1	60.0	4.04	1.40
2. My children like the four-day school week better than the five-day school week we had in the past	532	7.7	3.4	3.2	6.6	79.1	4.46	1.20
3. My children have been as successful in school with the four-day school week as they were in the past with the five-day school week	572	7.3	6.1	6.1	12.8	67.7	4.27	1.25
4. As compared to previous years, with the four-day school week I feel teachers communicate better with parents and on a more regular basis	485	22.3	13.8	18.8	16.9	28.2	3.15	1.52
5. The four-day school week has given school staff more time to prepare	538	5.9	2.8	30.3	9.3	51.7	3.98	1.21
6. The four-day school week is having a positive impact on what is being taught in classes	540	9.1	7.8	36.7	11.9	34.6	3.55	1.28
7. The four-day school week has improved public opinion of the quality of our school district	575	16.9	5.6	44.9	10.1	22.6	3.16	1.31

Results

Parents' perceptions of the four-day school week in their first year of implementation were favorable. In this section, the frequency distribution and descriptive statistics related to impact, concern, and approval items followed by comparison of perceptions based on demographic variables were presented.

Impact items. Regarding the impact items, families had more positive opinions when it came to impact directly on their family and children (see Table 1). In items 1, 2, and 3, between 73% and 86% of the families agreed the four-day week had a positive impact on their family, their children preferred this new model, and children were as successful as their previous experience in the five-day school week. Families' perceptions were more divided when the questions were about the impact on school matters. The percentage of families agreeing, disagreeing, and being neutral on items 4, 5, 6, and 7 was distributed more evenly, but still tending to positive opinions about the four-day school week.

Concerns items. With respect to items implying concern, the perception of families was still positive about the four-day week (see Table 2). Overall, families reported the new model did not add more homework time. More importantly, 88% of parents disagreed with the statement about being concerned with the safety of their children on the weekday they

are off school. Similarly, 86% of parents disagreed that they struggled finding daycare on the day school was not in session. Finally, one of the greater concerns for rural school districts, where 46% of the students received free or reduced lunch, was the fact of having one weekday without access to school meals. Ninety-one percent of the respondents reported this was not an issue.

Approval items. Two items in the survey asked families directly about their support/approval of the four-day week model (see Table 3). Item 12 was phrased positively, while Item 13 was not, and the results were consistent. Between 11% and 15 % of the families reported being neutral about continuing or not with the model. Sixty-nine percent agreed with the statement that the four-day week model should continue, and 67% disagreed with returning to the five-day model. In both cases, the approval for four-day week model was evident for most of the parents who responded to the survey.

Comparisons. The parents' perceptions were also analyzed by comparing demographic characteristics. In this section, the comparisons among families with and without children in special education, receiving free or reduced lunch, and families whose children attend elementary grades as opposed to upper level grades (middle and high school) are presented. Differences in perceptions from families whose children who spent or did not spend most of their time in a single parent home were also examined, but there were no significant differences. Independent-samples *t* tests were used to

Table 2

Frequency distribution of responses (%) and descriptive statistics of concern items

Concern Items	<i>n</i>	D	SD	NS	SA	A	<i>m</i>	<i>sd</i>
8. The four-day school week has resulted in more homework for my child	578	58.0	13.3	14.0	8.8	5.9	1.91	1.26
9. On Mondays when we are out of school, I am concerned about the safety of my children	579	85.0	3.3	1.7	5.7	4.3	1.41	1.07
10. I have struggled to find childcare for my children on the Mondays that school is not in session	571	84.2	2.1	1.8	6.8	5.1	1.46	1.14
11. The lack of the school breakfast and school lunch program on Mondays has had a negative impact on our family	577	89.4	1.6	3.5	3.3	2.3	1.27	0.86

Table 3

Frequency distribution of responses (%) and descriptive statistics of approval items

Approval Items	<i>n</i>	D	SD	NS	SA	A	<i>m</i>	<i>sd</i>
1. The four day school week model should be used again next school year	579	16.2		14.9		68.9	4.05	1.52
2. I would prefer that our school return to a five-day school week	579	64.1	3.3	11.2	4.8	16.6	2.07	1.56

detect differences in perceptions. The differences found associated to demographics are as follows.

Special Education Services. When comparing families with children who received special education services ($n=80$) and families who did not ($n=496$), the distribution of perceptions did not significantly differ between groups. Independent-sample *t*-test analyses showed there were no statistically significant differences in opinions whether families had children receiving special education services or not. However, the opinion towards the four-day week model tended to be more positive in families where children did not receive special education services. Tables 4 to 6 display the descriptive statistics for impact, concern, and approval items comparing the two groups

Free or reduced lunch. When comparing families with children who received free or reduced lunch ($n=266$) and families who did not ($n=309$), the researchers found that both groups had positive opinions about the model and it was not clear if, overall, one group favored the model more. Tables 7 to 9 show the descriptive statistics for impact, concern, and approval items comparing the families who received assistance with free and reduced lunch and those who did not. Independent-samples *t*-tests were conducted to compare families' opinions. The researchers found families who received free and

reduce lunch and those who did not differed on two items. First, they differed on item 18 regarding the four-day week model providing staff more time to prepare comparing responses from families with children who received free or reduced lunch and those who did not. There was a significant difference in the perception of parents of students with free or reduced lunch ($M=4.10$, $SD=1.20$) and parents of students who did not receive this benefit ($M=3.88$, $SD=1.22$); $t(527)=-2.10$, $p < 0.05$. Although the perception of both groups is positive, it appears parents of students who received free or reduced lunch tended to agree more with this statement. Second, perceptions also varied regarding the lack of breakfast and lunch on the day school was not in session as having a negative impact on the family. As expected, the *t*-test indicated there was a significant difference in the perception of parents of students with free or reduced lunch ($M=1.51$, $SD=1.14$) and parents of students who did not receive this benefit ($M=1.07$, $SD=0.42$); $t(571)=-5.82$, $p < 0.001$. Still, their average agreement with the statement was 1.51 and 1.07, respectively. This indicates the vast majority of parents disagreed with the lack of breakfast and lunch on the day school was not in session as having a negative impact on their family.

Table 4

Descriptive statistics of impact items by special education

Impact Items	Received services			Did not receive services		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
3. The four-day school week has had a positive impact on my family	69	3.72	1.671	463	4.08	1.361
4. My children like the four-day school week better than the five-day school week we had in the past	75	4.27	1.455	455	4.50	1.149
5. My children have been as successful in school with the four-day school week as they were in the past with the five-day school week	80	3.99	1.522	489	4.32	1.193
6. As compared to previous years, with the four-day school week, I feel teachers communicate better with parents and on a more regular basis	64	3.08	1.577	415	3.15	1.521
7. The four-day school week has given school staff more time to prepare	68	3.93	1.262	462	3.98	1.209
8. The four-day school week is having a positive impact on what is being taught in classes	69	3.30	1.332	463	3.58	1.269
9. The four-day school week has improved public opinion of the quality of our school district	80	3.28	1.368	492	3.14	1.303

Table 5

Descriptive statistics of concern items by special education

Concern Items	Received services			Did not receive services		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
10. The four-day school week has resulted in more homework for my child	80	2.03	1.359	495	1.88	1.236
11. On Mondays when we are out of school, I am concerned about the safety of my children	80	1.33	.952	496	1.43	1.087
12. I have struggled to find childcare for my children on the Mondays that school is not in session	79	1.54	1.279	489	1.45	1.123
13. The lack of the school breakfast and school lunch program on Mondays has had a negative impact on our family	80	1.40	1.098	494	1.26	.815

Table 6

Descriptive statistics of approval items by special education

Impact Items	Received services			Did not receive services		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
14. The four day school week model should be used again next school year	80	3.83	1.675	496	4.09	1.485
15. I would prefer that our school return to a five-day school week	80	2.31	1.747	496	2.02	1.531

Table 7

Frequency distribution of responses (%) and descriptive statistics of impact items by free and reduced lunch

Impact Items	Free and reduced lunch			Did not receive free and reduced lunch		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
1. The four-day school week has had a positive impact on my family	248	4.09	1.424	283	3.98	1.398
2. My children like the four-day school week better than the five-day school week we had in the past	245	4.39	1.277	283	4.53	1.128
3. My children have been as successful in school with the four-day school week as they were in the past with the five-day school week	266	4.20	1.338	302	4.35	1.165
4. As compared to previous years, with the four-day school week I feel teachers communicate better with parents and on a more regular basis	223	3.30	1.590	254	3.00	1.462
5. The four-day school week has given school staff more time to prepare	247	4.10	1.202	282	3.88	1.221
6. The four-day school week is having a positive impact on what is being taught in classes	248	3.61	1.293	283	3.50	1.273
7. The four-day school week has improved public opinion of the quality of our school district	263	3.37	1.372	308	2.98	1.235

Table 8

Descriptive statistics of concern items by free and reduced lunch

Concern Items	Free and reduced lunch			Did not receive free and reduced lunch		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
8. The four-day school week has resulted in more homework for my child	265	1.91	1.319	309	1.88	1.192
9. On Mondays when we are out of school, I am concerned about the safety of my children	266	1.38	1.044	309	1.44	1.093
10. I have struggled to find childcare for my children on the Mondays that school is not in session	264	1.45	1.115	303	1.48	1.165
11. The lack of the school breakfast and school lunch program on Mondays has had a negative impact on our family	265	1.51	1.139	308	1.07	.424

Grade Levels. When comparing families with children in elementary grades (n=281) with families with children in middle and high school (n=298), the researchers, again, found that both groups had positive opinions about the model, but the opinion of families with students in upper levels tended to be slightly higher. Tables 10 to 12 show the descriptive statistics for impact, concern, and approval items comparing the families with students in elementary and middle and high school grades.

The researchers found statistically significant differences in four items. An independent-samples *t*-test was conducted to compare the item regarding children being as successful as they were with the

five-day school week model in families with students in elementary grades and families with children in upper grades. There was a significant difference in the perception of parents of students in elementary grades (M=4.15, SD=1.34) and parents of students in upper grades (M=4.39, SD=1.16); $t(570) = -2.27, p < 0.05$. Although the perception of both groups is positive, it appears parents of students with older children tended to agree more with this statement. Perceptions also varied regarding families struggling to find daycare for their children when the school is not in session. As expected, the *t* test indicated there was a significant difference in the perception of parents of younger students (M=1.71, SD=1.38) and

Table 9

Descriptive statistics of approval items by free and reduced lunch

Approval Items	Free and reduced lunch			Did not receive free and reduced lunch		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
12. The four day school week model should be used again next school year	266	4.13	1.461	309	4.00	1.559
13. I would prefer that our school return to a five-day school week	266	2.03	1.565	309	2.09	1.559

Table 10

Frequency distribution of responses (%) and descriptive statistics of impact items by grade levels

Impact Items	Elementary			Middle and High School		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
1. The four-day school week has had a positive impact on my family	261	3.96	1.470	279	4.11	1.338
2. My children like the four-day school week better than the five-day school week we had in the past	248	4.36	1.300	284	4.55	1.103
3. My children have been as successful in school with the four-day school week as they were in the past with the five-day school week	275	4.15	1.341	297	4.39	1.157
4. As compared to previous years, with the four-day school week I feel teachers communicate better with parents and on a more regular basis	222	3.29	1.542	263	3.03	1.494
5. The four-day school week has given school staff more time to prepare	261	3.99	1.180	277	3.97	1.243
6. The four-day school week is having a positive impact on what is being taught in classes	261	3.52	1.311	279	3.58	1.255
7. The four-day school week has improved public opinion of the quality of our school district	278	3.15	1.309	297	3.17	1.310

Table 11

Descriptive statistics of concern items by grade levels

Concern Items	Elementary			Middle and High School		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
8. The four-day school week has resulted in more homework for my child	281	1.89	1.259	297	1.94	1.270
9. On Mondays when we are out of school, I am concerned about the safety of my children	281	1.40	1.048	298	1.42	1.086
10. I have struggled to find childcare for my children on the Mondays that school is not in session	278	1.71	1.378	293	1.24	.800
11. The lack of the school breakfast and school lunch program on Mondays has had a negative impact on our family	280	1.24	.811	297	1.30	.902

Table 12
Descriptive statistics of approval items by grade levels

Approval Items	Elementary			Middle and High School		
	<i>n</i>	<i>m</i>	<i>sd</i>	<i>n</i>	<i>m</i>	<i>sd</i>
12. The four day school week model should be used again next school year	281	3.90	1.611	298	4.19	1.410
13. I would prefer that our school return to a five-day school week	281	2.22	1.656	298	1.92	1.456

parents of older students ($M=1.24$, $SD=0.80$); $t(569) = 4.94$, $p < 0.001$. Still, their average agreement with the statement was 1.71 and 1.24, respectively. This indicates the vast majority of parents disagreed they have struggled to find daycare for their children when the school is not in session.

The other two items where differences were found between the perceptions of families with children in lower and upper grades were regarding the continuation of the four day model. Families with children in upper grades are more positive about the continuation of the four-day school model. Consequently, they tended to disagree more with the idea to return to a five-day school week. An independent-samples *t*-test showed parents with children in middle and high school ($M=4.19$, $SD=1.41$) differed from parent with children in elementary ($M=3.90$, $SD=1.61$) about continuing with a four-day school week; $t(577) = -2.31$, $p < 0.05$. Similarly, an independent-samples *t*-test showed parents with children in middle and high school ($M=1.92$, $SD=1.46$) differed from parents with children in elementary ($M=2.22$, $SD=1.66$) about returning to a five-day school week; $t(577) = -2.27$, $p < 0.05$.

Discussion

This research investigated the parental perception of commonly cited issues related to the implementation of the four-day school week found in both past research and anecdotal reports made in general media. Specifically, this research explored parental concerns related to the availability of childcare (Beesley & Anderson, 2007; Dam, 2006; Donis Keller & Silvermail, 2009; Hale, 2007; Juneau, 2011; Plucker et al., 2012; Reeves, 1999; Yarbrough & Gilman, 2006), the impact of the shortened week on students receiving special education services (Beesley & Anderson, 2007; Dam; Hale, 2007; Juneau, 2011; Plucker et al., 2012; Reinke, 1987), the unique impact of the shortened week on low-income students (Callahan, 2011; Cummings, 2015), and the impact of the lengthened school day on younger

children (Beesley & Anderson; Donis-Keller & Silvermail; Juneau; Newman et al., 2016; Reinke). Parental perceptions were also explored from the perspective of raising children within single parent households. The research further investigated parental perceptions of the impact the change in the school week schedule had on families, on the school district, and on community opinion of the school district. General parental perceptions of the four-day school week model in the three rural public schools were investigated.

The general finding of this study was that in nearly all areas, parents strongly support the transition to a four-day school week in their school district. This study found strong overall parental support to the idea that the four-day school week has had a positive impact on their family, their child, and the public perception of their school district. Overall, parental concerns were low related to commonly cited issues related to the four-day school week such as the perceived safety of their children, challenges finding childcare, and the loss of the school lunch program. Overall, parents in the three school districts studied strongly supported the four-day school week at the end of the first year of implementation and opposed a return to a five-day school week calendar. A more thorough investigation of the data uncovered a number of interesting parental perceptions that provided a deeper understanding related to the implementation of the four-day school week.

Parental perception of the four-day school week from families with students currently receiving special education services does reflect these parents do show less support for the four-day model as compared to parents of children not receiving special education; however, the distribution of perceptions did not significantly differ from parents without special education students. This study found 33% of the families with children receiving special education services preferred the school return to the five-day week as compared to only 12% of families with children who did not receive these services. When asked if the four-day school week had a positive

impact on their family, 29.4% of parents with special education students disagreed as compared to 10.1% of parents who had no students receiving special education services. While both parents with special education students and those without special education students have a positive opinion of the four-day school week model, there are more concerns about the model in families with special education students.

This study found few significant differences related to perceptions of the four-day school week between families receiving free and reduced lunches as compared to families who do not qualify for meal support. Parents with children receiving meal support were significantly more likely to believe the four-day school week gave teachers more time to prepare and, not surprisingly, parents with children receiving free or reduced lunches were significantly more likely to perceive that the lack of a school lunch program had a negative impact on their family. Still, parental support for the four-day school week was strong with free and reduced lunch families, even slightly stronger than parents who did not receive a meal subsidy.

The parental perception of the four-day school week based on a child's age was a primary focus of this research. Previous research and anecdotal reports from media sources often cite a concern related to safety and childcare as challenges of implementing the four-day school week childcare (Beesley & Anderson, 2007; Dam, 2006; Donis-Keller & Silvermail, 2009; Hale, 2007; Juneau, 2011; Plucker et al., 2012; Reeves, 1999; Yarbrough & Gilman, 2006). This study did not confirm previous conclusions related to safety, although some moderate concerns with specific age groups were identified related to childcare. When looking at parents with only elementary students in school, only 10.2% of parents agreed with the statement that asked if they were concerned about the safety of their children during the additional day off from school. When looking at parents with both elementary and middle school/high school students enrolled, 9.7% felt concerns for safety. Only minimally higher was the parental concern of those with middle school or high school students (10.3%). This study did find a significant difference related to childcare with 25.6% of parents with only elementary students enrolled struggling to find childcare for their children when school was not in session. Only 4.7% of parents with middle school/high school students and 8.2% of parents with both elementary and middle school/high

school students identified childcare as a concern. Overall, parents with only elementary aged student still continued to support the four-day school week but to a lesser measure than parents with both elementary and middle school/high school students or only middle school/high school students.

This study investigated but did not find any significant difference in parental perception from households where children are being raised primarily in single parent households.

Limitations

The three rural school districts that participated as part of this study are demographically similar and are located within sixty miles in neighboring counties of the same state. The geographical location and demographic composition of these school districts are very specific, and results are not generalizable to other type of school districts. In addition, the political, social, and economic context within the state may play a role in the findings and may not be generalizable to other states. At the time of this study, all three school districts were completing their first year using the four-day school week. The three rural school districts decided to continue with the four-day school week model. The results in this study are from the end of the first year of implementation; once the model had been better established, perceptions of parents might have changed. Finally, the survey did not include an open-ended section for comments. This omission impeded researchers to have a more complete picture of how parents of students attending these school districts feel about the four-day school week.

Conclusions and Future Directions

While four-day school weeks are common in many rural areas of the United States, the concept is relatively new within the state of Missouri. The most commonly cited reasons by rural school leaders for the move to the shortened school week include the recruit and retention of teachers, professional development and collaboration time, and financial savings. Since first allowed by law in Missouri in 2009, 33 school districts, all rural schools, have adopted the shortened school week calendar with only one returning to a traditional five-day school week. The rural parents participating in this study are part of school districts that were at the end of the first year of using a four-day school week calendar. In general, this study has found strong support of the

four-day school from parents. Some parental groups, however, are less supportive of the four-day week calendar and this research raises some issues for further exploration by researchers and educational leaders.

This study does confirm parents with students receiving special education services are less likely to support the transition to the four-day school week. While still supportive of the four-day school week, a third (33.3%) of the parents with special education children support a return to a five-day school week in their school districts after one year of use. This demonstrated a sizable difference as compared to families without students receiving special education services. A deeper investigation of these parents' perceptions is warranted in future research with a special focus on the unique school context issues facing rural special education students and their families.

This study found few significant differences related to the perceptions of the four-day school week between families receiving free or reduced lunches as compared with those that did not receive meal support. As expected, families who did receive free or reduced lunches did report missing a day of school lunch service did negatively impact their family, but these families still supported the switch to a four-day school week even by a larger measure than other families.

This study did not find significant parental concerns about the four-day school week related to their child's safety, which is an important finding in rural areas where families often have fewer childcare options. One in four parents with only elementary children in school reported having problems finding childcare while few parents with older children had concerns about childcare issues. This issue of childcare for families with only elementary aged children warrants further investigation. Families with only elementary children comprised the majority of those who preferred to return to the five-day week model while as a whole they still support the shortened week.

This study does confirm parents with only elementary students are significantly less likely to support the four-day school week compared to parents with only middle school/high school students and parents with both elementary and middle school/high school students. While all parental demographic groups support the four-day school

week in their school, just slightly more than half of the parents (54.8%) with only elementary students want to continue to use the four-day school week the next school year. This support is well below the support shown in parents with only middle school/high school students (67.8%) and parents with both elementary and middle school/high school students (78.6%). These differences do justify further investigation related to the specific reasons for lower support from families with only younger children; school districts that adopt the four-day model should focus on providing additional support for families with younger children.

Within the local context of these three school districts, at the end of the first year of using the four-day school week model, this research has identified strong rural parental support for the four-day school week model. In all categories, parental perception of the impact the four-day school week has had on their family and the success of their children in school is positive. This study did not find that family income or parental perception in single parent households was significantly different than other parental perceptions.

Rural school district leaders using or considering the four-day week calendar will find the most significant findings of this research are the unique parental perceptions of families with special education students and families with only elementary age children. These parental groups have a positive perception of the four-day school week, but are at levels which are less positive than other parental groups. Future research related to the four-day school week should focus on the perceptions of parents with special education students and households with only elementary aged students so schools implementing the shortened school week calendar can better respond to the concerns of these parents. In addition, future research should investigate if the rural context of the parents included in this study has been influenced by the size or rural nature of their district. For example, are there differences between parent perceptions of families living in rural-remote four-day school districts as compared to rural schools closer to more metropolitan areas. It is possible the rural context of schools and communities may play a significant role in the perceptions of parents related to the implementation of the shortened school week model.

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