

SOCIAL MEDIA: CONNECTING WITH PARENTS

UNDERSTANDING HOW SOCIAL MEDIA CAN INFLUENCE PARENTAL INVOLVEMENT

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QUESTIONS: How do North Carolina's districts and schools currently use social media to engage and communicate with parents? Does social media use affect parental involvement in schools?

BACKGROUND

Social media has transformed the way our communities connect with the world around them. In 2016, 78% of US Americans reported having a social media profile.¹ On average, smartphone users check their Facebook accounts 14 times per day.² The percent of businesses and organizations using social media for marketing continues to increase; 86% of businesses use Facebook to market their company, while 68% of companies use Twitter.³ School communities should begin thinking about how social media can be used as a tool to engage with parents and the wider school community. This analysis evaluates how schools' and districts' social media activity can affect parental engagement.

Peter Sutton, educational communications consultant, defines social media as the use of internet-based technology for collaboration.⁴ Consistent communication with parents is essential for creating sustainable and engaged educational communities. International research attributes parental involvement towards having the greatest impact on a student's academic achievement.⁵ As the number of active users on social media increases, schools will have to make decisions governing appropriate social media use.

Currently no social media policies have been established by the North Carolina General Assembly or the North Carolina State Board of Education (SBE). The North Carolina Office of the Governor released "Best Practices for Social Media Usage in North Carolina" to state agency Public Information Officers (PIOs). North Carolina's Public Schools were not mentioned in the Report from the Governor. The Department of Public Instruction (DPI) has outlined agency policy governing internal agency social media use; however, public schools and local educational agencies (LEAs) are not mentioned in internal policies. Some LEAs have adopted social media policies governing teachers' personal use of social media accounts. Most public schools have an Acceptable Use Policy that governs general computer and internet use.

¹ *The Infinite Dial 2016* (Rep.). (2016). Somerville, NJ: Edison Research and Triton Digital. Retrieved from <http://www.edisonresearch.com/the-infinite-dial-2016/>

² Dickey, M. R. (2013). It's Actually Disturbing How Often We Check Our Smartphones. Retrieved from <http://www.businessinsider.com/smartphone-usage-2013-3>

³ Facebook, Twitter Remain Top Social Networks Used by US Companies - eMarketer. (2015, December 2). Retrieved from <http://www.emarketer.com/Article/Facebook-Twitter-Remain-Top-Social-Networks-Used-by-US-Companies/1013290>

⁴ Sutton, P., & Hughes, A. (2015). *Social Remediation*. Kai Ming Publishing.

⁵ Keynes, W. H. (2005, December). Parental Involvement and Student Achievement: A Meta-Analysis (Rep.). Retrieved <http://www.hfrp.org/publications-resources/browse-our-publications/parental-involvement-and-student-achievement-a-meta-analysis>

METHODS

The study consisted of measuring current social media practices, a survey distributed to school and district leadership, and a statistical analysis regarding community involvement and social media use. Researchers analyzed current social media policies and practices in North Carolina's public schools and at the Department of Public Instruction. They also identified best practices regarding schools' use of social media to enhance parental engagement.

The study sought to understand current social media use in North Carolina's public schools. Researchers visited Facebook and Twitter pages for each public school and LEA. For Facebook pages, they recorded the total number of likes, visits, and presence of an official page. Facebook creates unofficial pages for schools in the absence of a school owning their own official Facebook page. For Twitter, researchers recorded the total number of followers and presence of an official account.

A survey, created through SurveyMonkey, was distributed to North Carolina's public school principals and LEA PIOs (Appendices 1 and 2, respectively). The survey sought to understand current social media use and engagement. The survey asked school leadership questions regarding employees responsible for updating social media platforms, how other school personnel currently use social media, and what information is the most relevant to share with stakeholders.

A statistical analysis was conducted by running linear regressions to determine the correlation between social media and community or parental involvement. The regression analyzed statements from the 2016 Teacher Working Conditions Survey and information gathered on current social media use. The statements analyzed from the Teacher Working Conditions survey include:

- "This school maintains clear, two-way communication with the community."
- "This school does a good job of encouraging parent / guardian involvement."
- "Teachers provide parents / guardians with useful information about student learning."
- "Parents / guardians know what is going in the school."

RESULTS

The study revealed that traditional public schools are not currently utilizing social media platforms to the same degree as charter schools and LEAs. Figure 1 details the public schools and LEAs in North Carolina with an official and active Facebook page (owned and operated by the school or district) and official Twitter account. On average, schools with an official Facebook page had more likes.

Figure 1. Current Social Media Engagement

	Official Facebook	Twitter
Charter Schools	77%	59%
Traditional Public Schools	35%	50%
LEAs	86%	79%

Only seven LEAs in North Carolina have 100% of their schools on Facebook with official pages, while 27 LEAs had less than 10% of the total schools in their district with a Facebook account (Appendix 3). Twitter had similar usage rates; five LEAs in North Carolina have 100% of the schools in the district with an official Twitter account and 29 LEAs had less than 10% of the total schools in their district with an active Twitter account (Appendix 4).

Between June 27 – July 10, 2016, 310 principals (11% response rate) and 54 PIOs (46% response rate) completed the survey regarding social media use in North Carolina's public schools. Figure 2 details the type of respondents by each county. The survey revealed that 86% of principals and 73% of PIOs agree that schools should do more to engage with students and parents on social media platforms. The survey also found that 48% of schools and 60% of LEAs have an individual whose responsibilities including maintaining and building the schools' social media presence. Figure 3 reveals what principals believe to be the most relevant information to share via social media platforms.



Figure 2. Respondents by County

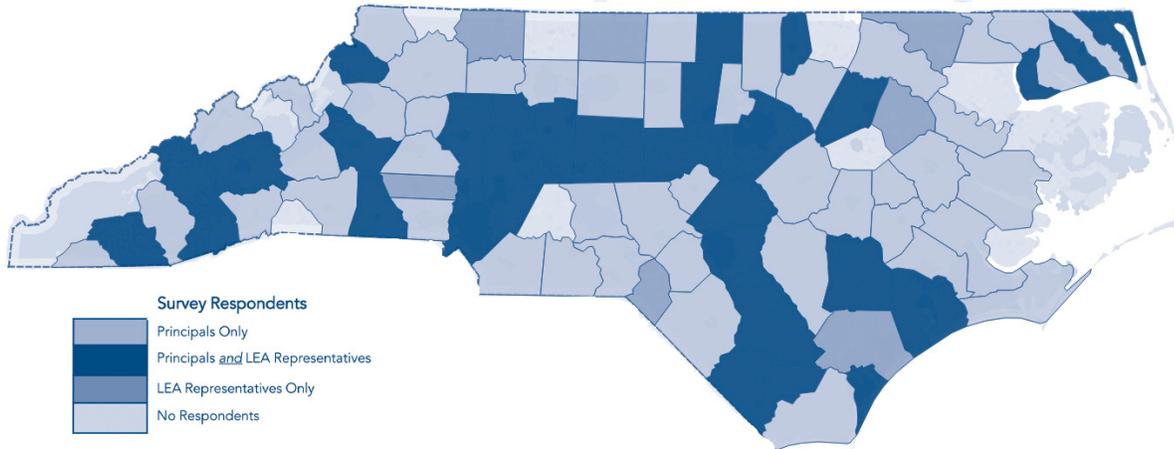


Figure 3. What Principals Believe the Most Pertinent Posts to Share via Social Media

Posts for Social Media	Percent of Principals Recorded as Most Pertinent Type of Post
School Events	59%
Schedule Changes	16%
Student Work	12%
Administrative Changes	6%
Extracurricular Activities	3%

Having an official Facebook page is positively correlated with teachers’ perception of community engagement and parental involvement. According to the regressions conducted using the 2016 Teacher Working Conditions Survey and current social media activity, in Figure 4 we explore the following correlations that were found to be statistically significant.

Figure 4. Positive Correlations Between Having an Official Facebook Page and Engagement

Statement	Confidence Level	Presence of Official Facebook Page Increases the Perception of Engagement by...
The school maintains a two-way communication with the community (Appendix 5)	99%	1.5% percentage points
The school does a good job encouraging parental involvement (Appendix 6)	99%	2% percentage points
The parents know what is going on in the school (Appendix 7)	99%	1.4% percentage points

The study also revealed that there is a correlation between parental involvement and the number of tweets per week (statistically significant at 95% confidence level, having an official page would raise the agreement percentage by roughly 1.4 percentage points) (Appendix 8). Having a designated employee responsible for maintaining social media platforms also is positively correlated with the teachers’ belief in maintaining a clear, two-way communication (statistically significant at 95% confidence level, having a designated person would raise the teacher agreement by roughly 2.7 percentage points) (Appendix 9). The statistical analysis did not reveal a correlation between the number of likes or followers and the level of engagement (Appendices 10 - 13).

CONCLUSIONS

The study revealed that 65% of North Carolina’s traditional public schools are not on Facebook, and 50% are not on Twitter. A school’s absence on Facebook is particularly alarming because of the vacuum of information that occurs. Facebook automatically creates unofficial Facebook pages for all of the schools without official Facebook pages. Any user can go visit the unofficial Facebook and virtually engage with the school without the school’s knowledge. Individuals with less than noble intentions could post inappropriate images, post criticism that does not allow the school the opportunity to respond, or provide false information. On Facebook, schools are better able to control the image and message of a school when they create an official page. When schools create official Facebook pages, they control what information is shared, who responds to comments, and ensure the virtual presence of a school is truly reflective of the school. Upon creation of an official page, unofficial pages are dissolved. Therefore, schools without official Facebook pages should create Facebook pages to better control the school’s communication and the virtual image of the school.

The study also found that more charter schools have social media accounts versus traditional North Carolina public schools. As school choice remains a relevant conversation

in most households, traditional public schools should model the competitive nature that charter schools adopt by having a robust social media presence.

The study revealed current sentiments regarding social media. The survey illustrated that principals and PIOs acknowledge that schools should do more to engage with students and parents on social media platforms. This acknowledgment signals a paradigmatic shift in how schools approach social media. As school leadership acknowledges social media's relevance, they will likely be more supportive of shared best practices and policies enacted to promote the use of social media in North Carolina's public schools.

The statistical analysis revealed that a positive correlation exists between the mere presence of social media platforms and teachers' perception of parental and community involvement. Smaller schools might believe time spent trying to build a social media following would be futile due to the size of the school or community. However, the statistical analysis found no correlation between the size of engaged users on various social media platforms and teachers' current perceptions regarding parental involvement and engagement.

In summary, schools should strongly consider increasing their social media presence. By using social media, schools can improve current marketing and community outreach plans. Social media can help schools celebrate activities and accomplishments. It is also important to note that social media can mitigate risks by controlling the information broadcasted to the community and maximizing the promotion of positive publicity. When schools use social media they are also fostering constructive dialogue with community members. Social media also provides schools with the opportunity to communicate in a manner similar to how most parents, organizations, companies, and communities are already utilizing; social media can promote interconnectedness and community involvement and engagement. The number of young students engaging on social media platforms continues to increase; therefore, schools have the opportunity to model appropriate social media use to their students.⁶

RECOMMENDATIONS

Based on this research, we have five recommendations for the State Board of Education to consider:

1. The State Board of Education may consider establishing best practices and model policies for LEAs and schools to adopt.
 - Currently, no best practices or social media policies exist for NC's public schools. By publishing best practices and model policies the State Board of Education can inform LEAs and schools of how to appropriately use social media to better communicate with the educational community.
2. The State Board of Education may consider encouraging schools and LEAs to utilize their social media presence by claiming unofficial Facebook pages and creating Twitter accounts. Schools should also consider connecting the two accounts so that posts from Facebook and Twitter appear simultaneously.
 - If a school does not have an official Facebook account, Facebook automatically creates a page and allows for community members to engage with the page. Schools and LEAs lose the ability to control their message when Facebook creates unofficial pages, therefore, schools should claim their unofficial page to create pages to engage with schools and communities. Schools can find more information about claiming unofficial Facebook pages by visiting Facebook's link: <https://www.facebook.com/help/168172433243582>.
 - If a school does not have a Twitter account, the school may consider adopting an account to better engage with parents and the community. Schools should also consider increasing the frequency of tweets. The regression revealed a correlation between increasing the number of tweets sent out and the level of parental involvement.
3. The State Board of Education may consider connecting with schools and LEAs and re-sharing their communication through DPI's social media accounts.
 - DPI should consider sharing media posts from schools and LEAs to celebrate accomplishments. This free publicity might be a way to incentivize other schools to increase their social media presence.
4. The State Board of Education may consider encouraging school leadership to delegate maintaining social media platforms to school employees.
 - The statistical analysis revealed there was a positive correlation between having an employee whose specific duties involve maintaining social media platforms and teacher's perceptions of maintaining a clear, two-way communication with the community.
5. The State Board of Education may consider encouraging schools to evaluate current policies (Acceptable Use Policies) and how these policies can be modified to promote the use of social media.
 - Principals, teachers, students, and parents should collaborate to create policies that best reflect the school's culture. Kimmel Farm Elementary in Winston Salem Forsyth County Public Schools established social media guidelines and best practices to govern social media use. Kimmel Farm's guidelines include information regarding creating and maintain social media accounts, privacy information, best type of information to share, and fostering a virtual community of respectful behavior.

⁶ Myers, A. (2015). Kids & Social Media. Retrieved <https://www.pedialliance.com/socialmediaaiguide>

APPENDIX 1: PRINCIPAL SURVEY

- School District:
- Name of School:
- Role in School System:
- Grade Range in School or District:
- How many times per week does your school post to the following channels? (0, 1-5, 6-10, 11-15, 16+)
 - Facebook, Twitter, Instagram, Snapchat, Other (please indicate)
- Does your school have an employee whose responsibilities specifically include posting and following others on social media (for example, a social media coordinator)?
- Please rate parent involvement in your school on a scale of 1 to 4.
 - 1 – parents are not involved in their child’s academic life
 - 2 – parents are sometimes involved in their child’s academic life
 - 3 – parents are involved in their child’s academic life, but not so much with events taking place around the school (or vice versa). Parents attend events that involves their child.
 - 4 – Parents are actively involved in their child’s academic life. Parents frequently attend events hosted by the school and frequently volunteer their time and energy to helping out with school events.
- Please rate how active the PTA generally is in your school on a scale of 1 to 4.
 - 1 – our school does not have a PTA
 - 2 – our school’s PTA operates with limited engagement and support
 - 3 – The PTA holds meetings and supports the teachers
 - 4 – Our school has a very active PTA, frequently planning events and providing support to teachers and educational opportunity to students
- What is the extent to which social media contributes to parental involvement?
 - Social media does not affect the engagement levels of parents or families. Using social media will not affect parental involvement.
 - Social media can affect the engagement level of parents and families. Social media can be used to engage with parents about school events and projects.
 - Social media positively affects the engagement levels of parents and families. The use of social media encourages communication between families and schools and boosts overall engagement.
- Do your teachers use social media to connect and engage with students? If so, how?
 - Answer student questions, announce assignments, post homework, cooperative group work, classroom publicity, other

- Do your teachers use social media to connect and engage with parents? If so, how?
 - Answer parent questions, announce students assignments, post homework, classroom publicity, other
- Do coaches or extracurricular advisers use social media to connect and engage with team / club members and their parents? If so, how?
 - Announce meetings and schedule changes, post rosters, advertise sports / extracurricular events, team / club publicity, other
- Please rate the degree to which you agree with the following statement: my school should do more to engage with students and parents using social media
- Please rank what order of information do you believe the most relevant to share with parents on social media platforms
 - School events, schedule changes, extracurricular activities / schedule, student work, administrative information

APPENDIX 2: PUBLIC INFORMATION OFFICER SURVEY

- Local Education Agency:
- How many times per week does your LEA post to the following channels? (0, 1-5, 6-10, 11-15, 16+)
 - Facebook, Twitter, Instagram, Snapchat, Other (please indicate)
- Does your district have an employee whose responsibilities specifically include posting and following others on social media (for example, a social media coordinator)?
- Does your district allow students to access social media sites on the school network
- Does your district allow teachers access to social media sites on the school network
- Please rate the degree to which you agree with the following statement: my school should do more to engage with students and parents using social media
- Please rank what order of information do you believe the most relevant to share with parents on social media platforms
 - School events, schedule changes, extracurricular activities / schedule, student work, administrative information

APPENDIX 3: PERCENT OF SCHOOLS WITH OFFICIAL FACEBOOK ACCOUNTS BY LEA

SCHOOLS	% OF FB SCHOOLS	SCHOOLS	% OF FB SCHOOLS
Asheville City Schools	100.00%	Carteret County Public Schools	33.33%
Columbus County Schools	100.00%	Clay County Schools	33.33%
Edenton-Chowan Schools	100.00%	Elkin City Schools	33.33%
Pamlico County Schools	100.00%	Granville County Schools	33.33%
Person County Schools	100.00%	Northampton County Schools	33.33%
Surry County Schools	100.00%	Transylvania County Schools	33.33%
Union County Public Schools	100.00%	Tyrrell County Schools	33.33%
Beaufort County Schools	92.86%	Wilkes County Schools	31.82%
Montgomery County Schools	90.91%	Wake County Schools	31.58%
Rutherford County Schools	88.89%	Haywood County Schools	31.25%
New Hanover County Schools	82.93%	Pender County Schools	31.25%
Swain County Schools	80.00%	Caldwell County Schools	30.77%
Buncombe County Schools	79.07%	Alexander County Schools	30.00%
Bertie County Schools	75.00%	Chatham County Schools	29.41%
Kannapolis City Schools	75.00%	Davidson County Schools	28.57%
Cabarrus County Schools	72.97%	Edgecombe County Public Schools	28.57%
Craven County Schools	72.00%	Wilson County Schools	28.00%
Yadkin County Schools	71.43%	Durham Public Schools	27.78%
Hickory City Schools	66.67%	Anson County Schools	27.27%
Madison County Schools	66.67%	Henderson County Schools	26.09%
Scotland County Schools	66.67%	Asheboro City Schools	25.00%
Catawba County Schools	64.29%	Mooresville Graded School District	25.00%
Pitt County Schools	63.89%	Perquimans County Schools	25.00%
Stokes County Schools	63.16%	Roanoke Rapids City Schools	25.00%
Orange County Schools	61.54%	Cherokee County Schools	21.43%
Ashe County Schools	60.00%	Public Schools of Robeson County	21.43%
Cleveland County Schools	51.72%	Gaston County Schools	20.00%
Alleghany County Schools	50.00%	Gates County Schools	20.00%
Charlotte-Mecklenburg Schools	48.21%	Washington County Schools	20.00%
Stanly County Schools	47.62%	Dare County Schools	18.18%
Brunswick County Schools	47.37%	Johnston County Schools	18.18%
Bladen County Schools	46.15%	Lenoir County Public Schools	17.65%
Burke County Schools	44.44%	Alamance-Burlington Schools	16.67%
Nash-Rocky Mount Schools	42.86%	Caswell County Schools	16.67%
Newton Conover City Schools	42.86%	Davie County Schools	16.67%
Chapel Hill-Carrboro City Schools	40.00%	Elizabeth City-Pasquotank Public Schools	16.67%
Clinton City Schools	40.00%	Greene County Schools	16.67%
Onslow County Schools	40.00%	Hertford County Schools	14.29%
Rowan-Salisbury Schools	40.00%	Hoke County Schools	14.29%
Whiteville City Schools	40.00%	Mitchell County Schools	14.29%
Moore County Schools	39.13%	Polk County Schools	14.29%
Iredell-Statesville Schools	38.89%	Guilford County Schools	12.70%
Sampson County Schools	38.89%	Lee County Schools	12.50%
McDowell County Schools	38.46%	Richmond County Schools	12.50%

SCHOOLS	% OF FB SCHOOLS
Warren County Schools	12.50%
Rockingham County Schools	12.00%
Avery County Schools	9.09%
Macon County Schools	9.09%
Winston Salem/Forsyth County Schools	8.75%
Lincoln County Schools	8.33%
Harnett County Schools	7.14%
Franklin County Schools	6.25%
Wayne County Public Schools	6.06%
Vance County Schools	5.88%
Cumberland County Schools	4.60%
Camden County Schools	0.00%
Camp Lejeune	0.00%
Cherokee Central Schools	0.00%
Currituck County Schools	0.00%

SCHOOLS	% OF FB SCHOOLS
Duplin County Schools	0.00%
Graham County Schools	0.00%
Halifax County Schools	0.00%
Hyde County Schools	0.00%
Jackson County Public Schools	0.00%
Jones County Schools	0.00%
Lexington City Schools	0.00%
Martin County Schools	0.00%
Mount Airy City Schools	0.00%
Randolph County School System	0.00%
Thomasville City Schools	0.00%
Watauga County Schools	0.00%
Weldon City Schools	0.00%
Yancey County Schools	0.00%

APPENDIX 4: PERCENT OF SCHOOLS WITH TWITTER ACCOUNTS BY LEA

SCHOOLS	% OF TWITTER SCHOOLS
Edenton-Chowan Schools	100.00%
Union County Public Schools	100.00%
Alleghany County Schools	100.00%
McDowell County Schools	100.00%
Wayne County Public Schools	100.00%
Iredell-Statesville Schools	97.22%
Rowan-Salisbury Schools	97.14%
Wake County Schools	96.49%
Surry County Schools	94.74%
Moore County Schools	91.30%
Watauga County Schools	90.00%
Sampson County Schools	88.89%
Vance County Schools	88.24%
Cabarrus County Schools	86.49%
Chapel Hill-Carrboro City Schools	85.00%
Orange County Schools	84.62%
Henderson County Schools	82.61%
Chatham County Schools	82.35%
Gaston County Schools	81.82%
Haywood County Schools	81.25%
Alamance-Burlington Schools	80.56%
Davidson County Schools	80.00%
Pamlico County Schools	75.00%
Charlotte-Mecklenburg Schools	66.07%
Onslow County Schools	65.71%
Johnston County Schools	63.64%
Asheville City Schools	62.50%
Lee County Schools	62.50%

SCHOOLS	% OF TWITTER SCHOOLS
Granville County Schools	61.90%
Stokes County Schools	57.89%
Pender County Schools	56.25%
New Hanover County Schools	56.10%
Hickory City Schools	55.56%
Bladen County Schools	53.85%
Burke County Schools	51.85%
Caswell County Schools	50.00%
Franklin County Schools	50.00%
Cleveland County Schools	48.28%
Randolph County School System	45.16%
Rutherford County Schools	44.44%
Winston Salem/Forsyth County Schools	42.50%
Swain County Schools	40.00%
Nash-Rocky Mount Schools	39.29%
Bertie County Schools	37.50%
Kannapolis City Schools	37.50%
Craven County Schools	36.00%
Guilford County Schools	35.71%
Columbus County Schools	33.33%
Madison County Schools	33.33%
Elkin City Schools	33.33%
Transylvania County Schools	33.33%
Durham Public Schools	33.33%
Greene County Schools	33.33%
Graham County Schools	33.33%
Jones County Schools	33.33%
Wilson County Schools	32.00%

SCHOOLS	% OF TWITTER SCHOOLS	SCHOOLS	% OF TWITTER SCHOOLS
Wilkes County Schools	31.82%	Warren County Schools	12.50%
Brunswick County Schools	31.58%	Martin County Schools	10.00%
Caldwell County Schools	30.77%	Stanly County Schools	9.52%
Pitt County Schools	30.56%	Davie County Schools	8.33%
Alexander County Schools	30.00%	Cherokee County Schools	7.14%
Halifax County Schools	30.00%	Hoke County Schools	7.14%
Catawba County Schools	28.57%	Duplin County Schools	6.25%
Rockingham County Schools	28.00%	Carteret County Public Schools	5.56%
Asheboro City Schools	25.00%	Scotland County Schools	0.00%
Mooreville Graded School District	25.00%	Whiteville City Schools	0.00%
Perquimans County Schools	25.00%	Clay County Schools	0.00%
Weldon City Schools	25.00%	Northampton County Schools	0.00%
Buncombe County Schools	23.26%	Tyrrell County Schools	0.00%
Jackson County Public Schools	22.22%	Anson County Schools	0.00%
Yadkin County Schools	21.43%	Roanoke Rapids City Schools	0.00%
Public Schools of Robeson County	21.43%	Gates County Schools	0.00%
Harnett County Schools	21.43%	Washington County Schools	0.00%
Person County Schools	20.00%	Elizabeth City-Pasquotank Public Schools	0.00%
Ashe County Schools	20.00%	Mitchell County Schools	0.00%
Clinton City Schools	20.00%	Polk County Schools	0.00%
Montgomery County Schools	18.18%	Macon County Schools	0.00%
Dare County Schools	18.18%	Camden County Schools	0.00%
Avery County Schools	18.18%	Camp Lejeune	0.00%
Lenoir County Public Schools	17.65%	Cherokee Central Schools	0.00%
Lincoln County Schools	16.67%	Currituck County Schools	0.00%
Cumberland County Schools	14.94%	Hyde County Schools	0.00%
Beaufort County Schools	14.29%	Lexington City Schools	0.00%
Newton Conover City Schools	14.29%	Mount Airy City Schools	0.00%
Edgecombe County Public Schools	14.29%	Thomasville City Schools	0.00%
Hertford County Schools	14.29%	Yancey County Schools	0.00%
Richmond County Schools	12.50%		

APPENDIX 5: "SCHOOL MAINTAINS TWO WAY COMMUNICATION" FACEBOOK AND TWITTER OFFICIAL ACCOUNTS REGRESSION

```
. regress waycomm FB twitter
```

Source	SS	df	MS	Number of obs = 2531		
Model	1411.42503	2	705.712517	F(2, 2528) =	5.41	
Residual	329610.89	2528	130.384055	Prob > F =	0.0045	
Total	331022.316	2530	130.83886	R-squared =	0.0043	
				Adj R-squared =	0.0035	
				Root MSE =	11.419	

waycomm	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
FB	1.53066	.4756568	3.22	0.001	.5979432	2.463377
twitter	.0765155	.4597663	0.17	0.868	-.8250416	.9780725
_cons	89.48317	.3513447	254.69	0.000	88.79421	90.17212

APPENDIX 6: "SCHOOL ENCOURAGES PARENTAL INVOLVEMENT" FACEBOOK AND TWITTER OFFICIAL ACCOUNTS REGRESSION

```
. regress encourageinvolvement FB twitter
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Source	SS	df	MS	Number of obs =	2531
Model	2782.63376	2	1391.31688	F(2, 2528) =	4.34
Residual	810633.838	2528	320.662119	Prob > F =	0.0131
Total	813416.472	2530	321.508487	R-squared =	0.0034
				Adj R-squared =	0.0026
				Root MSE =	17.907

encouragei~t	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
FB	2.031303	.7464768	2.72	0.007	.5675347 3.495072
twitter	.4886461	.7212249	0.68	0.498	-.9256058 1.902898
_cons	89.66114	.5505811	162.85	0.000	88.5815 90.74077

APPENDIX 7: "PARENTS KNOW WHAT IS GOING ON IN THE SCHOOL" FACEBOOK AND TWITTER OFFICIAL ACCOUNTS REGRESSION

```
. regress parentsknow FB twitter
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Source	SS	df	MS	Number of obs =	2528
Model	1149.26847	2	574.634237	F(2, 2525) =	3.52
Residual	412061.945	2525	163.19285	Prob > F =	0.0297
Total	413211.214	2527	163.518486	R-squared =	0.0028
				Adj R-squared =	0.0020
				Root MSE =	12.775

parentsknow	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
FB	1.409021	.5326482	2.65	0.008	.3645492 2.453493
twitter	-.1097409	.5147597	-0.21	0.831	-1.119135 .8996535
_cons	87.05856	.393337	221.33	0.000	86.28727 87.82986

APPENDIX 8: "PARENTAL INVOLVEMENT" TWEETS PER WEEK REGRESSION

```
. regress parentinvolvement facebookpostsweek tweets snapsweek instapicsperweek othersaposts
```

Source	SS	df	MS	Number of obs =	177
Model	2.91085304	5	.582170609	F(5, 171) =	1.17
Residual	84.82926	171	.496077544	Prob > F =	0.3242
Total	87.740113	176	.498523369	R-squared =	0.0332
				Adj R-squared =	0.0049
				Root MSE =	.70433

parentinvolvement	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
facebookpostsweek	.0621694	.1105863	0.56	0.575	-.1561206 .2804595
tweets	.1595113	.0780553	2.02	0.045	.0038562 .3151664
snapsweek	.1494449	.4204047	0.36	0.723	-.6804062 .979296
instapicsperweek	-.1275414	.1524267	-0.84	0.404	-.4204217 .1733389
othersaposts	-.0434424	.0444744	-0.98	0.330	-.1312319 .0443472
_cons	3.007192	.0633499	48.73	0.000	2.962143 3.212241

APPENDIX 9: “MAINTAINING TWO- WAY COMMUNICATION” OFFICIAL SCHOOL EMPLOYEE RESPONSIBLE FOR SOCIAL MEDIA REGRESSION

```
. regress waycomm employee
```

Source	SS	df	MS			
Model	510.58331	1	510.58331	Number of obs =	291	
Residual	30989.1566	289	107.228915	F(1, 289) =	4.76	
				Prob > F =	0.0299	
				R-squared =	0.0162	
				Adj R-squared =	0.0128	
				Root MSE =	10.355	
Total	31499.7399	290	108.619793			

waycomm	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
employee	2.65186	1.215271	2.18	0.030	.2599552	5.043765
_cons	89.50066	.8399127	106.56	0.000	87.84754	91.15378

APPENDIX 10: “PARENTS KNOW WHAT IS GOING ON IN THE SCHOOL” FACEBOOK AND TWITTER REGRESSION

```
. regress parentsknow fblikes visits twitterfollowers
```

Source	SS	df	MS			
Model	618.269044	3	206.089681	Number of obs =	1275	
Residual	207059.783	1271	162.910923	F(3, 1271) =	1.27	
				Prob > F =	0.2849	
				R-squared =	0.0030	
				Adj R-squared =	0.0006	
				Root MSE =	12.764	
Total	207678.052	1274	163.0126			

parentsknow	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
fblikes	-.0011266	.0005887	-1.91	0.056	-.0022816	.0000283
visits	.0000622	.000076	0.07	0.943	-.0016563	.0017808
twitterfollowers	.0004764	.00055	0.87	0.387	-.0006026	.0015554
_cons	87.87814	.6155536	142.76	0.000	86.67053	89.08575

APPENDIX 11: “THIS SCHOOL DOES A GOOD JOB OF ENCOURAGING PARENT INVOLVEMENT” FACEBOOK AND TWITTER REGRESSION

```
. regress encourageinvolvement FB twitter
```

Source	SS	df	MS	
Model	2782.63376	2	1391.31688	Number of obs = 2531
Residual	810633.838	2528	320.662119	F(2, 2528) = 4.34
Total	813416.472	2530	321.508487	Prob > F = 0.0131
				R-squared = 0.0034
				Adj R-squared = 0.0026
				Root MSE = 17.907

encouragei~t	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
FB	2.031303	.7464768	2.72	0.007	.5675347	3.495072
twitter	.4886461	.7212249	0.68	0.498	-.9256058	1.902898
_cons	89.66114	.5505811	162.85	0.000	88.5815	90.74077

APPENDIX 12: “TEACHERS PROVIDE PARENTS WITH USEFUL INFORMATION ABOUT STUDENT LEARNING” FACEBOOK AND TWITTER REGRESSION

```
. regress provideinfo fblikes visits twitterfollowers
```

Source	SS	df	MS	
Model	694.350092	3	231.450031	Number of obs = 1275
Residual	717055.787	1271	564.16663	F(3, 1271) = 0.41
Total	717750.137	1274	563.383153	Prob > F = 0.7457
				R-squared = 0.0010
				Adj R-squared = -0.0014
				Root MSE = 23.752

provideinfo	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
fblikes	-.0010979	.0010955	-1.00	0.316	-.0032471	.0010513
visits	-.0006115	.0016302	-0.38	0.708	-.0038097	.0025867
twitterfollowers	.0000459	.0010235	0.04	0.964	-.0019621	.0020538
_cons	97.19067	1.145498	84.85	0.000	94.94339	99.43794

APPENDIX 13: “THE SCHOOL MAINTAINS CLEAR, TWO-WAY COMMUNICATION WITH THE COMMUNITY” FACEBOOK AND TWITTER REGRESSION

```
. regress waycomm fblikes visits twitterfollowers
```

Source	SS	df	MS			
Model	311.016156	3	103.672052	Number of obs =	1275	
Residual	165771.462	1271	130.426012	F(3, 1271) =	0.79	
Total	166082.478	1274	130.363012	Prob > F =	0.4967	
				R-squared =	0.0019	
				Adj R-squared =	-0.0005	
				Root MSE =	11.42	

waycomm	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
fblikes	.0003501	.0005267	0.66	0.506	-.0006833	.0013835
visits	-.0000748	.0007838	-0.10	0.924	-.0016125	.0014629
twitterfollowers	.000571	.0004921	1.16	0.246	-.0003944	.0015365
_cons	89.99478	.5587733	163.40	0.000	88.91426	91.07531



By Izzi Hernandez-Cruz and Dylan Russell

The Financial and Business Services Area is in its tenth year of the Research Intern Program. The Program is designed to help build a quality research program within NCDPI to supplement and supply data for discussions related to procedural, process, and policy changes. This year's program included students from Duke University's Master of Public Policy program and the University of North Carolina at Chapel Hill's Master of Public Administration programs. The intern program is managed by Eric Moore (919-807-3731) | intern_research@dpi.nc.gov.

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