



Arizona Remote Teacher Survey: Teaching During a Pandemic Final Report

PREPARED BY

Jamie Utt

Robin Hiller

Francesca López, PhD

The University of Arizona Education Policy Center
new.coe.arizona.edu/education-policy-center

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Contact: falopez@arizona.edu



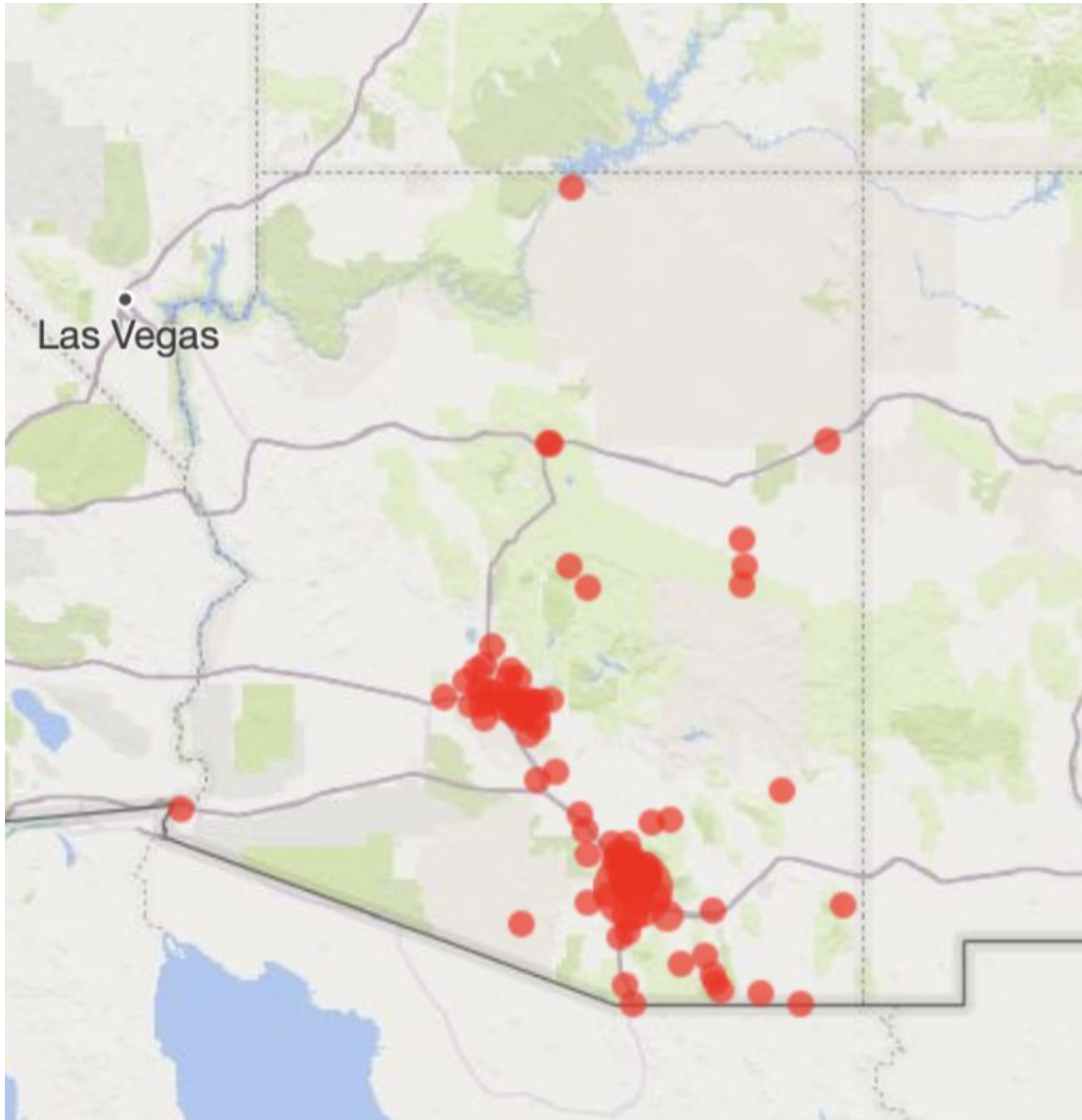
Introduction

When the statewide Coronavirus shelter-in-place order began and schools were closed with the expectation of remote learning, the University of Arizona Education Policy Center determined to serve the wider community by assessing the impact of remote learning on teachers and students. From April 12 until May 12, a survey was distributed to Arizona teachers throughout the state. 1,247 teachers filled out the survey. The full survey can be found at the end of this report.



DEMOGRAPHICS

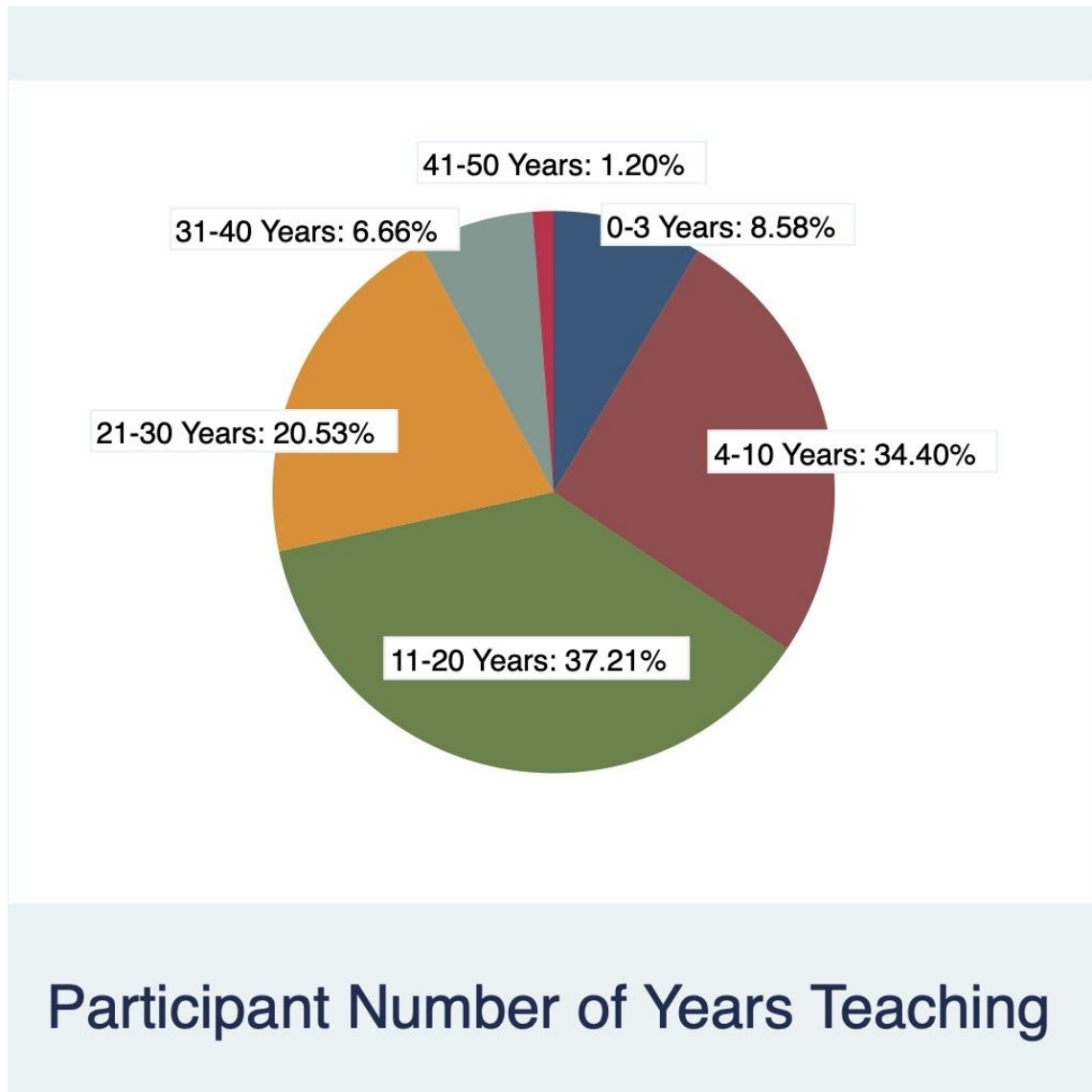
Participating teachers were asked to share the zip code of their school. 703 of the 1,247 participating teachers chose to share their zip codes, which allows us to visualize the range of participation:



University of Arizona Education Policy Center
1430 E 2nd St, Tucson, AZ 85721
Contact: falopez@arizona.edu

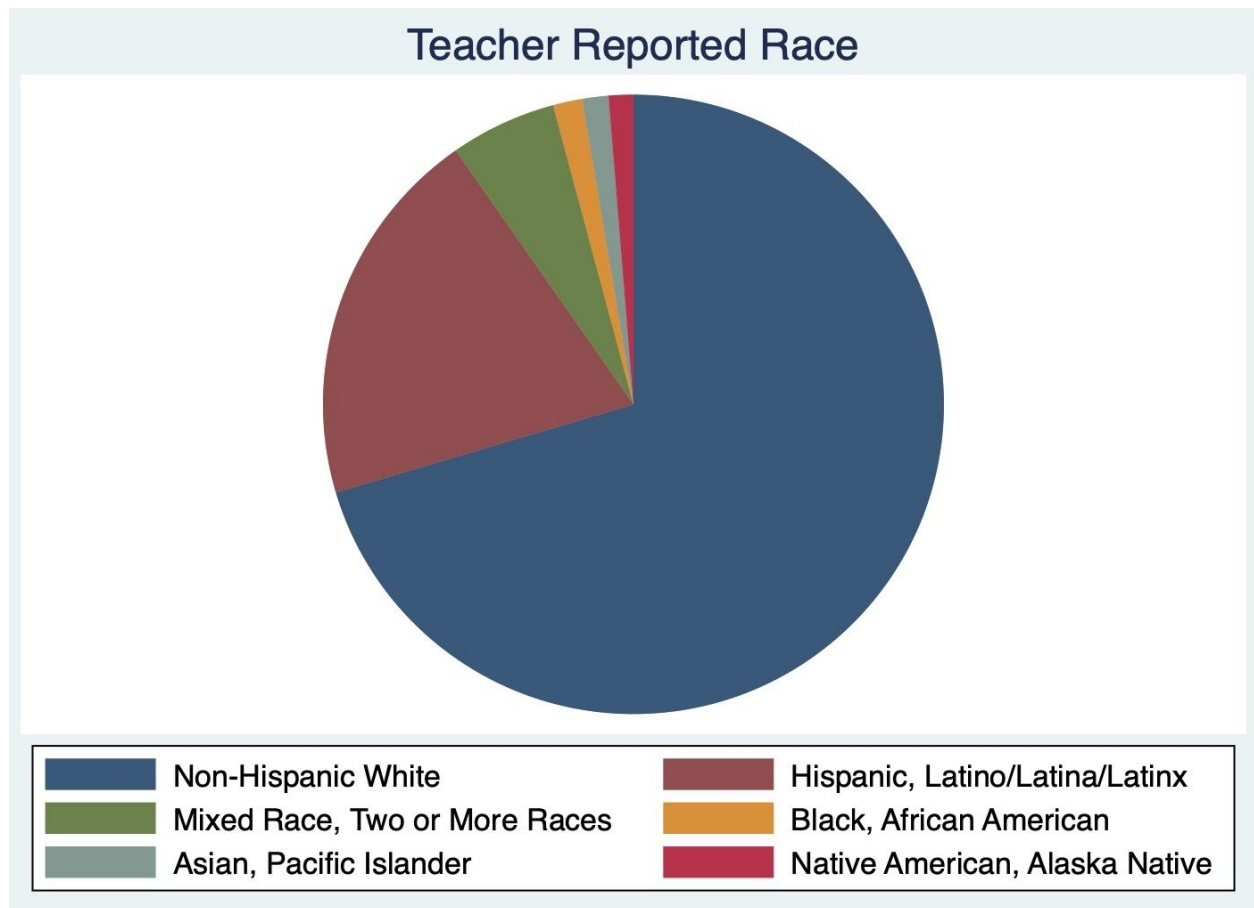


Participating teachers were also asked to share the number of years they had been teaching. The median number is 15 years, with a range of less than 1 year to 46 years.



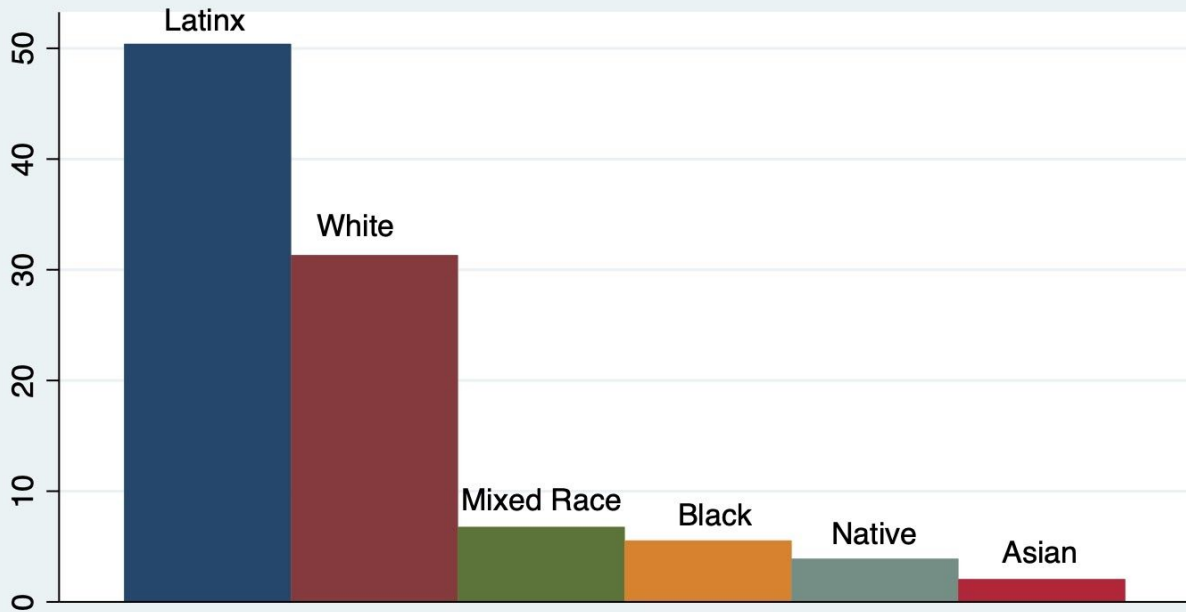


The sample ended up being slightly more diverse than Arizona's teaching force on the whole, with 70.4% of responding teachers being White, 19.89% being Hispanic or Latinx, 5.5% being mixed race, 1.5% being Black or African American, 1.3% being Asian or Pacific Islander, and 1.2% being Native American or Alaska Native.





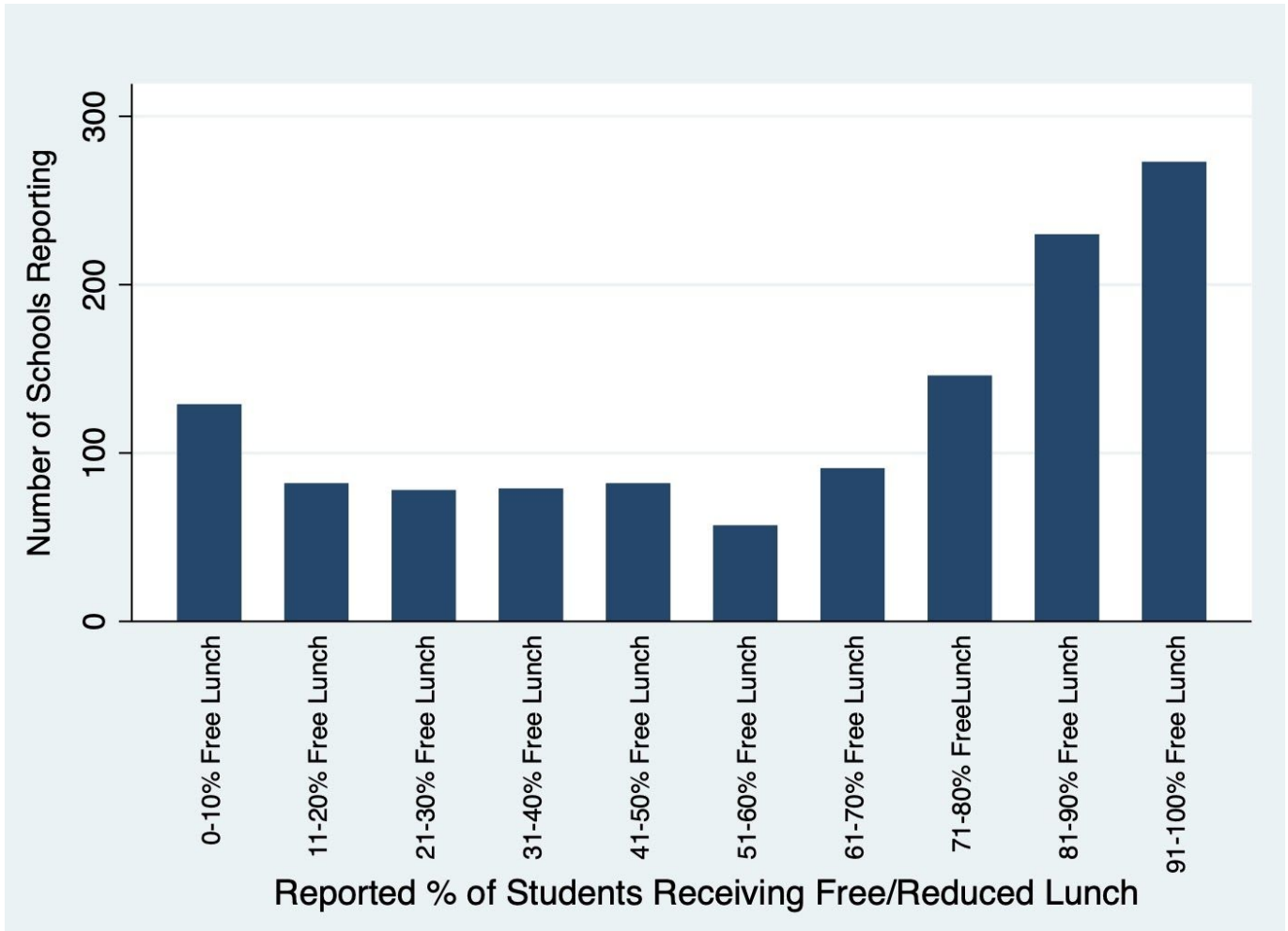
The mean reported race of students within the sampled schools is reported below and is somewhat reflective of the student population of the state of Arizona.



Mean Reported Race of Student Population



The median reported percentage of the student body receiving free or reduced price lunch was 74%, though the sampled schools ranged from 0% receiving free or reduced lunch to a considerable portion of the schools with 100% of the students receiving free or reduced lunch.

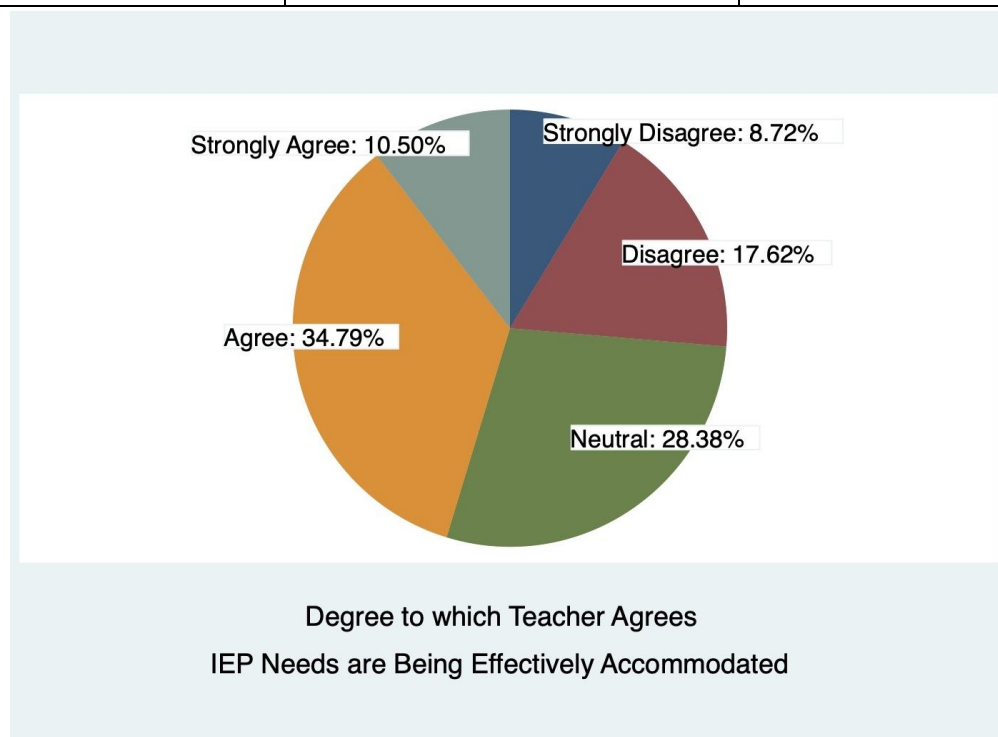


SUPPORT FOR STUDENTS WITH IEPs

Generally teachers agreed or were neutral on the question of whether IEP needs were being effectively accommodated in accordance with the law, though it's notable that nearly 24% of teachers did not agree that this was taking place. Additionally, 123 teachers did not answer this question.

Degree to which teachers feel IEP needs are being accommodated effectively and in accordance with the law:

Strongly Disagree	98	8.72%
Disagree	198	17.62%
Neutral	319	25.58%
Agree	391	31.36%
Strongly Agree	118	9.46%



Notably, there is a negative relationship between the percent of the student body receiving free or reduced lunch and the degree to which teachers report, meaning that as the percent of students receiving free or reduced price lunch increases, teachers are less likely to report effective accommodation of IEP needs. This is seen in a robust regression:

VARIABLES	likert scale indicating degree to which agree IEP needs accommodated effectively	Beta (Standardized) Coefficient
Aggregated Free Lunch Variable	-0.0597*** (0.0104)	-.167
Constant	3.542*** (0.0639)	
Observations	1,124	
R-squared	0.028	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The standardized (beta) coefficient -0.167 can be understood to mean that for every 1 standard deviation increase in students receiving free/reduced lunch, teachers reporting of IEP needs being effectively accommodated are .167 standard deviations lower.

Race also appears to be a factor in whether teachers report that IEP needs are being effectively addressed in accordance with the law. The percentage of students who are White as reported by the teacher is a significant predictor of whether teachers feel that IEP needs are being addressed, meaning that as the percentage of White students increases so too does the teacher’s belief that IEP needs are being accommodated. The opposite is true for Latinx students. Individual regression results find that teachers are less likely to see IEP needs as being met effectively as the percentage of the body that is Latinx rises. The easiest way to see this is to look at regression results for when 50% or more of the student body is White as opposed to when the student body is less than 50% White. When a school is more than 50% White, teachers become .118 standard deviations more likely to indicate favorable IEP accommodation (on a 5 point scale) than when a school is less than 50% White.

VARIABLES	likert scale indicating degree to which agree IEP needs accommodated effectively	Beta (Standardized) Coefficient
Predominantly White Schools (more than 50% White)	0.302*** (0.0727)	.118
Constant	3.130*** (0.0392)	
Observations	1,124	
R-squared	0.014	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Qualitative Findings

Some qualitative responses on what further support would need indicate a need for more guidance and instruction on how to effectively accommodate for IEP needs while teaching remotely:

“Best practices for creating online activities for students with intellectual disabilities”

“With my population of students being in the severe and multiple disabilities program. I honestly have no idea what I'm doing.”

“Just a bit more clarity on IEP writing that will reflect the current situation, and why we don't need to do IEP amendments.”

“Easier ways to set up specialized lessons for IEP and EL students in Google Classroom”

“More direction on IEP services”

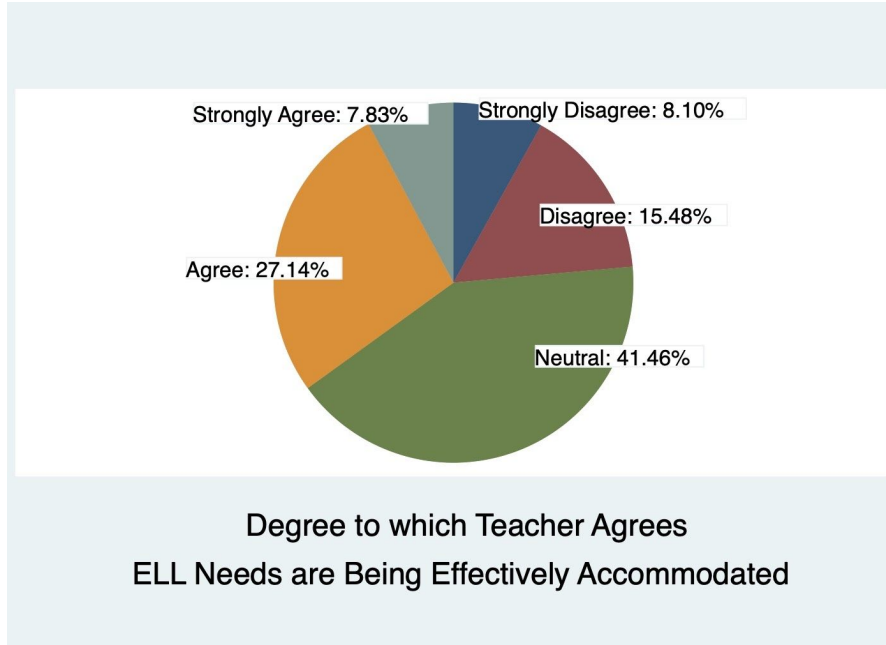
“IEP supports”

SUPPORT FOR ELL STUDENTS

Many teachers are neutral or feel that ELL needs are being accommodated effectively and in accordance with the law. However, 23.58% of teachers do not feel that ELL needs are being met through distance learning. Further, more than 40% of teachers were neutral on the question, indicating they did not have sufficient knowledge about ELL needs and accommodation to answer the question. Additionally, 123 teachers did not answer this question.

Degree to which teachers feel ELL needs are being accommodated effectively and in accordance with the law:

Strongly Disagree	91	8.10%
Disagree	174	15.48%
Neutral	466	41.46%
Agree	305	27.14%
Strongly Agree	88	7.83%



Similarly to IEP needs, there is a negative relationship between the percentage of the student body receiving free or reduced price lunch and the likelihood that teachers believe ELL needs are being accommodated effectively. Essentially, as the number of students receiving free/reduced lunch increases, the lower the reported rating of effective ELL accommodation.

VARIABLES	likert scale indicating degree to which agree ELL needs accommodated effectively	Beta (Standardized) Coefficient
Aggregated Free Lunch Variable	-0.0337*** (0.00951)	-.102
Constant	3.300*** (0.0579)	
Observations	1,124	
R-squared	0.011	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The standardized (beta) coefficient -0.102 can be understood to mean that for every 1 standard deviation increase in students receiving free/reduced lunch, teachers reporting of IEP needs being effectively accommodated are .102 standard deviations lower on a 5 point scale (strongly disagree to strongly agree).

Similar to findings regarding IEP accommodation, race is a factor in the effective accommodation of English Language Learner needs. As the percentage of students of Color increase, the likelihood that teachers report favorable ELL accommodation decreases. When a school is more than 50% students of Color, teachers are nearly far less likely to offer favorable reports of ELL accommodation. When a student body is more than 50% students of Color, teachers are .058 standard deviations less likely to report effective accommodation of ELL needs.

VARIABLES	likert scale indicating degree to which agree ELL needs accommodated effectively	Standardized (Beta) Coefficient
Student body more than 50% POC	-0.128** (0.0634)	-.058
Constant	3.200*** (0.0508)	
Observations	1,124	
R-squared	0.003	

Robust standard errors in parentheses

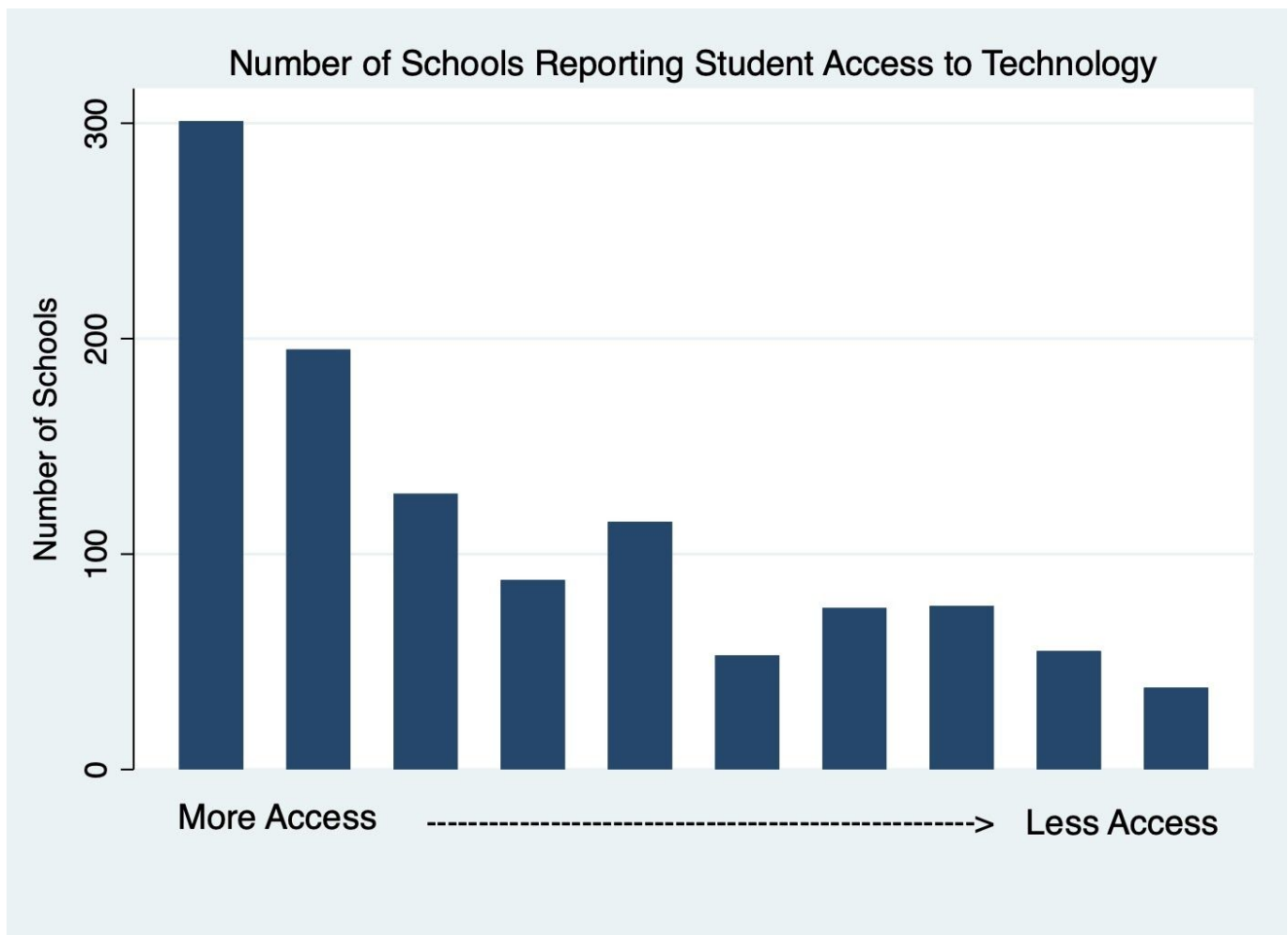
*** p<0.01, ** p<0.05, * p<0.1

Qualitative Findings

Similar qualitative concerns to those expressed about meeting IEP needs were expressed for ELL students. Teachers called for training on how to use available technology to effectively teach ELD at a distance. Additionally teachers called for things like “better language support for my EL families” and “more materials translated into various languages, more interpreters.” One teacher noted that they were expected “to communicate with every family regardless of language barrier or lack of technology,” though they were not necessarily receiving support on how to do so. Another teacher remarked: “I wish I had more support for my mono-language Spanish families who need support understanding my posts and connecting to the resources the district is offering them. It is not easy getting them to respond to emails or phone calls. I have no way of knowing if I am serving them when they do not respond or offer feedback.”

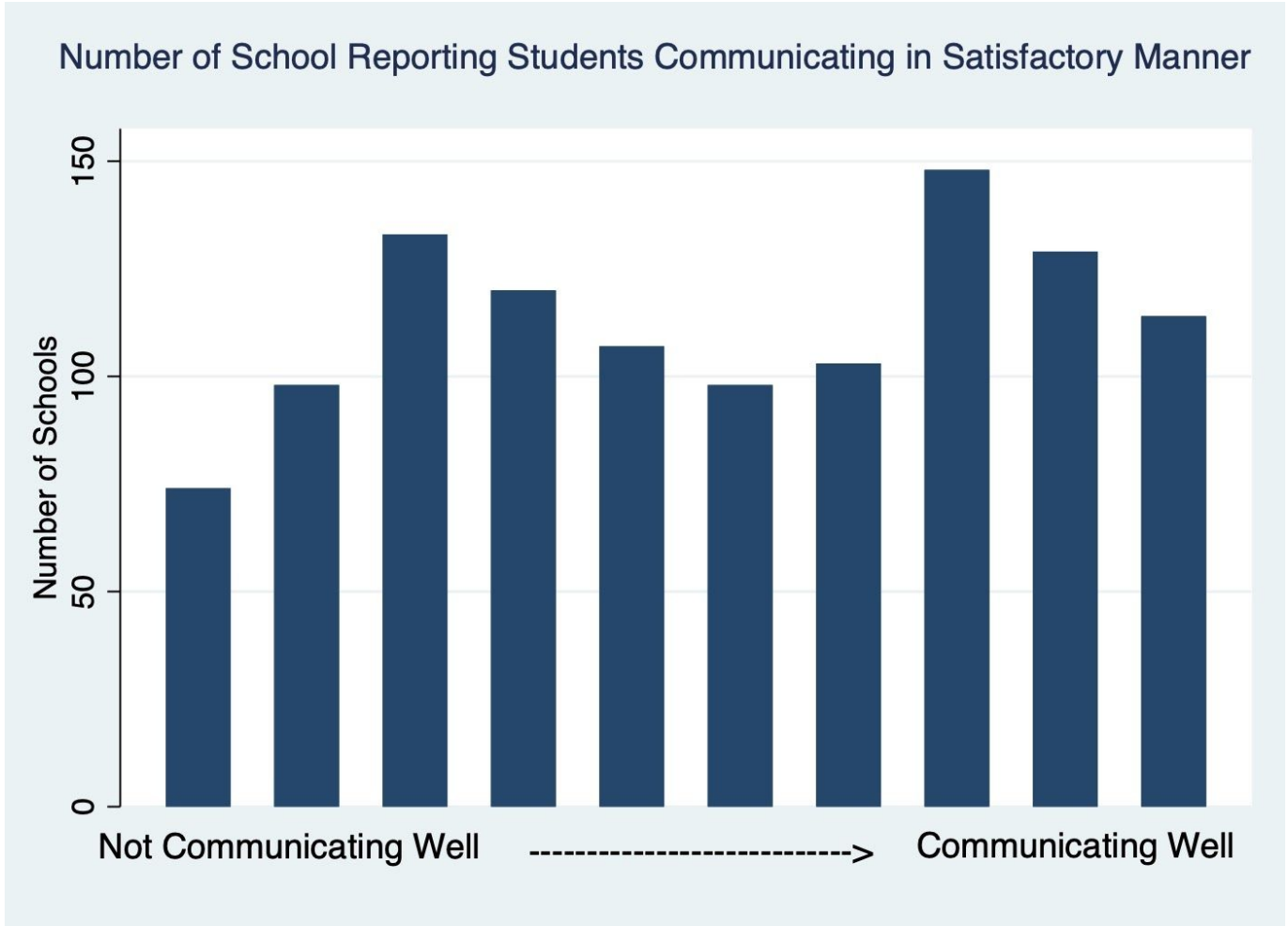
STUDENT ACCESS TO REMOTE LEARNING

The percent of the student body teachers report as **not having appropriate access** to technology to participate in remote learning ranges from 0-100 with a mean of 35.53% and a median of 30%. In essence, this means that teachers report most students as having appropriate access to technology, though there are still a significant percentage of Arizona students without appropriate access to technology for distance learning.





According to participating teachers, the percentage of students that are communicating in a satisfactory manner has a mean of 55.14% with a median of 58%.



Basic regressions indicate that the percentage of students who qualify for free and reduced lunch is a strong predictor of both the percentage of students who do not have access to proper technology AND the percentage of students who are communicating in ways teachers/admin deem appropriate for learning.

REGRESSION RESULTS FOR EFFECT OF PERCENTAGE FREE LUNCH
ON PERCENT NOT HAVING APPROPRIATE TECHNOLOGY

VARIABLES	Percent of Student Body Teacher Identifies as NOT having appropriate tech for remote learning
Percent of Student Body Teacher Identifies as Receiving Free/Reduced Lunch	0.267*** (0.0278)
Constant	18.78*** (1.969)
Observations	1,124
R-squared	0.090

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

For every 1 percent increase in students receiving free and reduced lunch, there is a .26 percent increase in students not having appropriate technology for remote learning. This means that for every 10% increase in students receiving free and reduced lunch, 2.6% more students are reported as having insufficient technology for remote learning.

Race is also a factor in whether students have access to technology. As the percentage of White students increases, significant regression results indicate that teachers are more likely to report acceptable access to technology, 2.3% increase in access to tech for every 10% increase in the number of White students. However, as the percentage of Latinx, Black, and Native students increases, teachers indicate students are less likely to have access to appropriate technology. There are 1.8% fewer Latinx students who have access to appropriate tech per every 10% increase in Latinx students. There are 2.8% fewer Black students with access to appropriate tech for every 10% increase in Black students. And there are 1.9% fewer Native students who have access to appropriate tech for every 10% increase in Native students in the school.

VARIABLES	Percent of Student Body Teacher Identifies as NOT having appropriate tech
Student body more than 50% POC	11.22*** (1.842)
Constant	27.76*** (1.576)
Observations	1,124
R-squared	0.034

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Percentage of students receiving free and reduced lunch is also a significant predictor of whether teachers report that students are communicating in a way deemed acceptable. For every 1 percent increase in students receiving free and reduced lunch, there is a .297 percent decrease in students communicating in a way deemed satisfactory during remote learning. This means that for every 10% increase in students receiving free and reduced lunch, 2.8% fewer students are reported as communicating in a way deemed satisfactory. This is likely a function of access to technology.

REGRESSION RESULTS FOR EFFECT OF PERCENTAGE FREE LUNCH
ON PERCENT COMMUNICATING SATISFACTORILY

VARIABLES	Percent of Student Body communicating in remote learning in satisfactory manner
Percent of Student Body Teacher Identifies as Receiving Free/Reduced Lunch	-0.297*** (0.0243)
Constant	73.81*** (1.681)
Observations	1,124
R-squared	0.115

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Similar to the above-described trends, race is a predictor in whether students are communicating in a way deemed satisfactory, likely because of the above-documented lack of access to technology for many students of Color. As the percentage of White students increases, significant regression results indicate that teachers are more likely to report satisfactory communication; for every 10% increase in White students, 2.3% more students are reported as communicating satisfactorily. However, as the percentage of Latinx students increases 10%, 1.7% fewer students are reported as communicating satisfactorily. As the percentage of Black students increases 10%, 4.9% fewer students are reported as communicating satisfactorily. As the number of Native students increases 10%, 1.9% fewer students are reported as communicating satisfactorily. And when a school is more than 50% students of Color, students are reported to be far less likely to be communicating sufficiently than when a school is majority White:

VARIABLES	Percent of Student Body communicating in remote learning in satisfactory manner
Student body more than 50% POC	-13.34*** (1.737)
Constant	64.39*** (1.443)
Observations	1,124
R-squared	0.050

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1



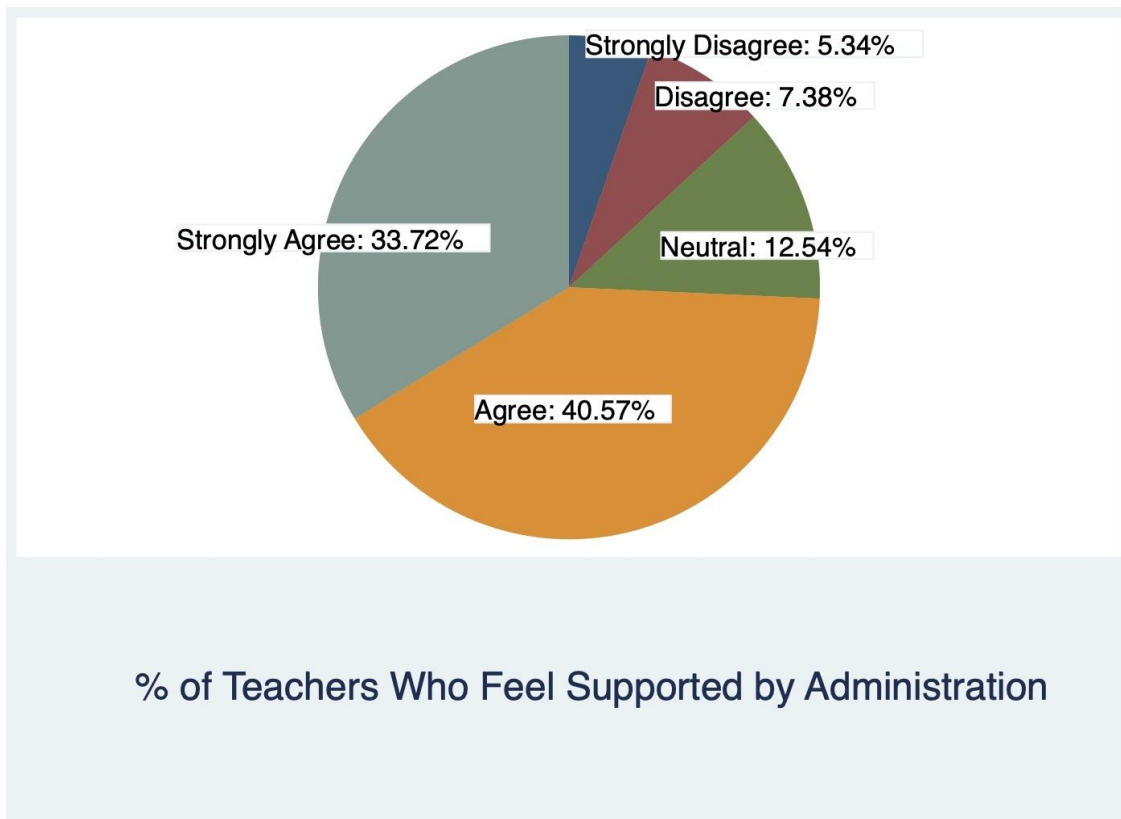
TEACHER SUPPORT FROM ADMINISTRATION

Importantly, most teachers are feeling supported by their administration in this difficult time of remote learning during a pandemic:

Percent of Teachers Who Feel Supported by Administration

Strongly Disagree	60	5.34%
Disagree	88	7.83%
Neutral	141	12.54%
Agree	456	40.57%
Strongly Agree	379	33.72%

*123 teachers did not answer this question



Unfortunately, though, there is a negative relationship between feelings of teacher support and the percentage of students receiving free and reduced lunch, indicating that the more impoverished the student body, the less supported teachers feel in moving to remote learning:

VARIABLES	likert scale indicating degree to which agree teacher feels supported by admin	Standardized (Beta) Coefficient
Aggregated Free Lunch Variable	-0.0495*** (0.0105)	-.139
Constant	4.172*** (0.0651)	
Observations	1,124	
R-squared	0.019	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The standardized beta coefficient -0.129 can be understood to mean that for every 1 standard deviation increase in students receiving free/reduced lunch, teachers report .139 lower agreement with whether they feel supported on a 5 point scale (strongly disagree to strongly agree).

Also important to note, Hispanic or Latinx teachers are both significantly less likely to feel supported by administration than White teachers in both a practical and statistical sense:

VARIABLES	likert scale indicating degree to which agree teacher feels supported by admin	Standardized (Beta) Coefficients
Teacher Racial Identity = 1, Hispanic, Latino/Latina/Latinx	-0.254*** (0.0881)	-.091
Teacher Racial Identity = 2, Mixed Race, Two or More Races	-0.181 (0.154)	-.037
Teacher Racial Identity = 3, Black, African American	-0.365 (0.389)	-.037
Teacher Racial Identity = 4, Asian, Pacific Islander	0.153 (0.290)	.017
Teacher Racial Identity = 5, Native American, Alaska Native	-0.498 (0.366)	-.051
Constant	3.965*** (0.0379)	
Observations	1,124	
R-squared	0.012	

Robust standard errors in
parentheses

*** p<0.01, ** p<0.05, * p<0.1

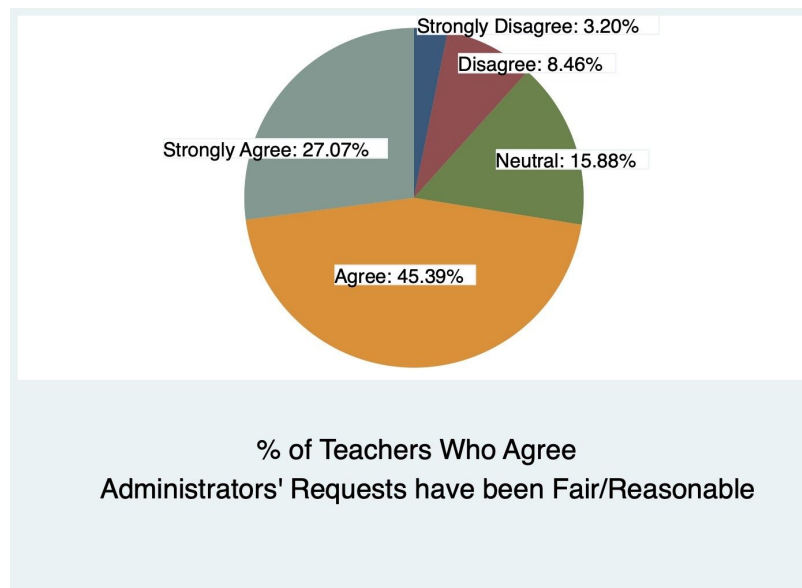
This means that compared to White teachers, Latinx teachers report .091 standard deviations lower scores on a 5 point scale (strongly disagree to strongly agree) about how supported they feel by Administration. This is important to note as we consider the challenges of teacher retention, particularly for teachers of Color, in the state of Arizona, as these challenges may be exacerbated by distance learning. Further, Native, Mixed Race, and Black teachers also seem to feel less supported compared to White teachers, though these are not statistically significant likely due to sample size.

Additionally, teachers agree that the administration’s demands are fair and reasonable during remote learning:

Percent of Teachers Who Feel Administration Demands are Fair and Reasonable

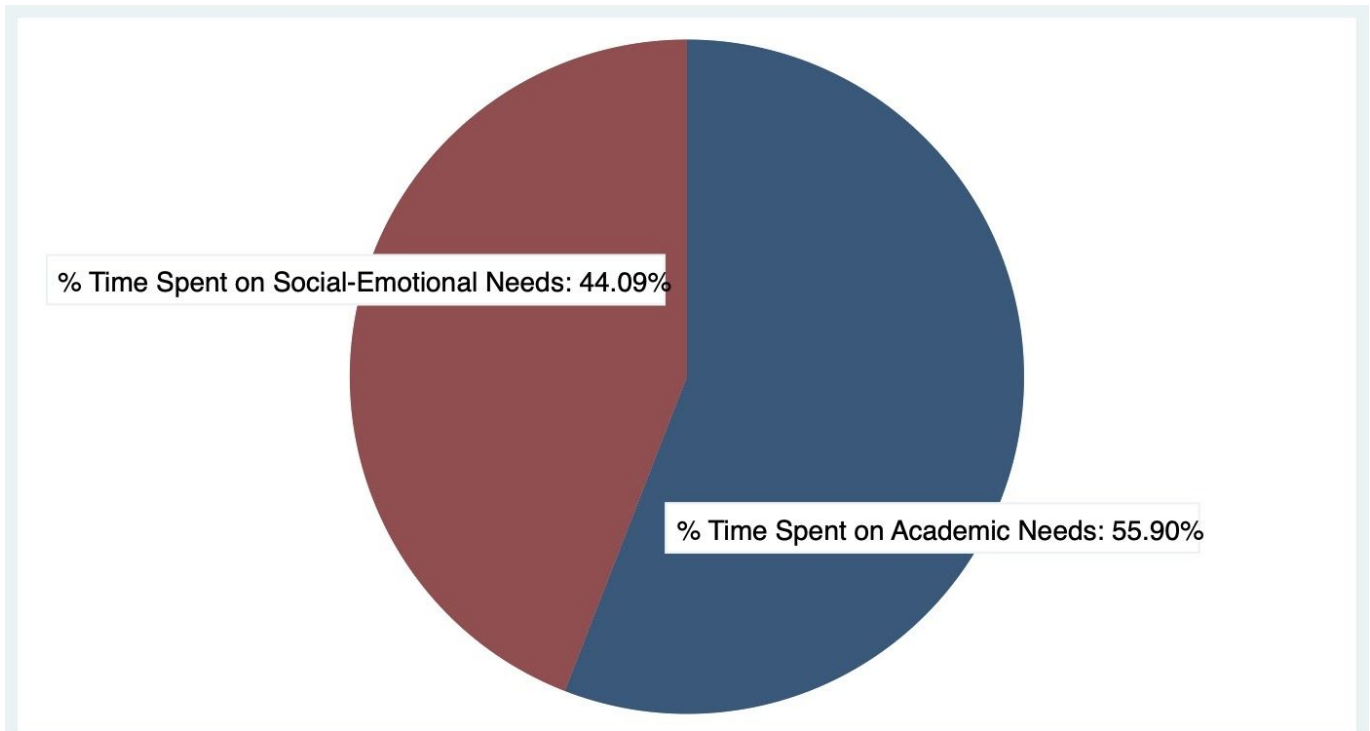
Strongly Disagree	34	3.20%
Disagree	90	8.46%
Neutral	169	15.88%
Agree	483	45.39%
Strongly Agree	288	27.07%

*183 teachers did not answer this question



STUDENT SOCIAL & EMOTIONAL NEEDS

It's clear that teachers are spending a great deal of their time and energy supporting social-emotional needs as compared to academic needs. The mean amount of time teachers say they are spending on social-emotional needs is 44.09% of their time with a median response of 50% and a range from 0-100. The mean amount of time teachers say they are spending on academic needs is 55.90% of their time with a median response of 50% and a range from 0-100.



Mean % of Time Teachings Are Spending on Academic & Social/Emotional Needs

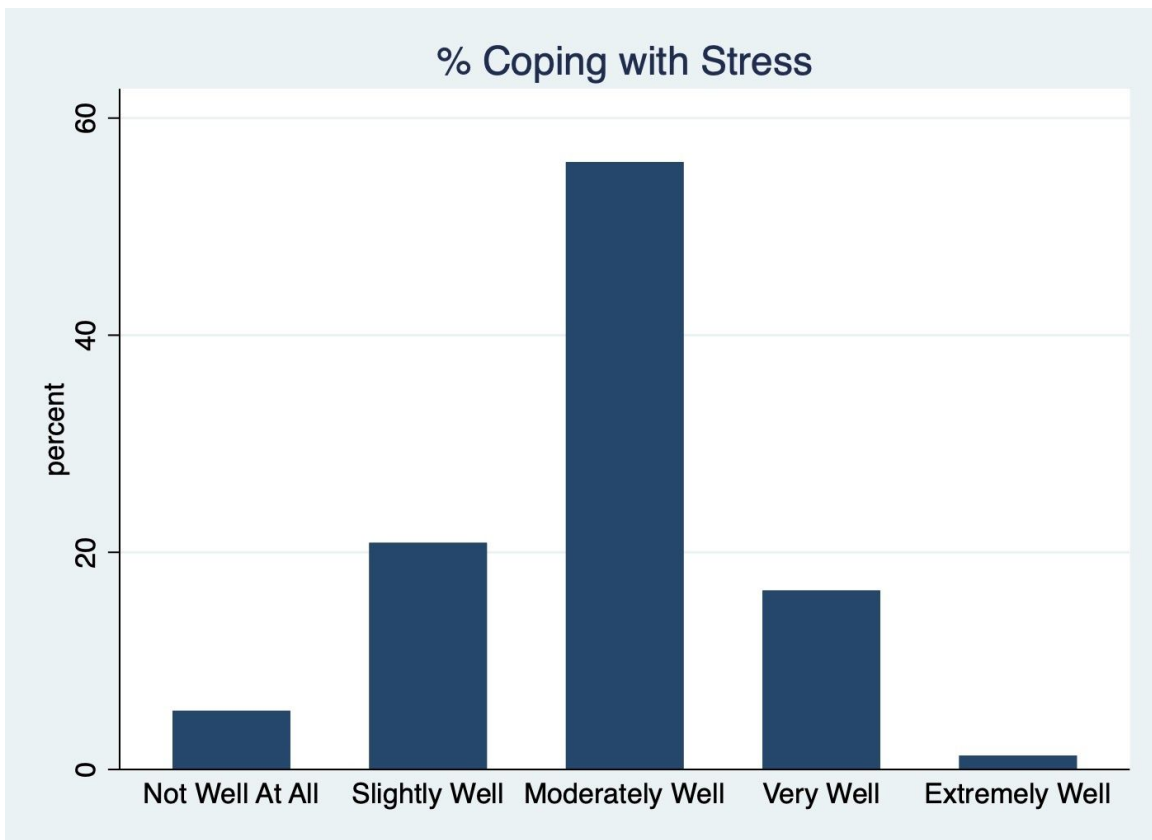


Teacher Assessment of How Well Students Are Coping with Stress in Remote Learning

Not Well At All	59	5.40%
Slightly Well	228	20.88%
Moderately Well	611	55.95%
Very Well	180	16.48%
Extremely Well	14	1.28%

*155 teachers did not answer this question

Notably, few teachers think students are coping with stress in remote learning “Very Well” or “Extremely Well.”



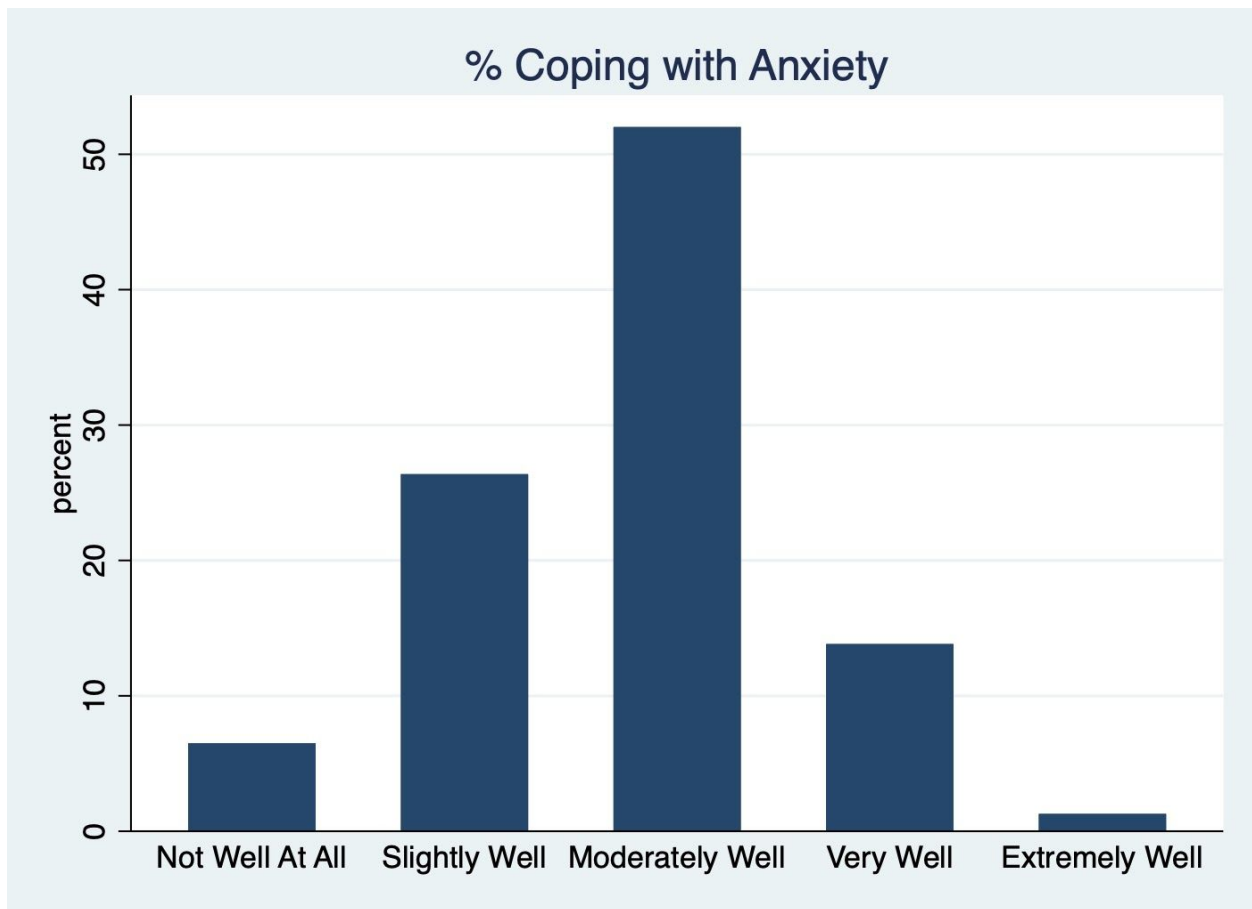


Even more teachers show concern about how well students are coping with anxiety:

Teacher Assessment of How Well Students Are Coping with Anxiety in Remote Learning

Not Well At All	71	6.50%
Slightly Well	228	26.37%
Moderately Well	568	52.01%
Very Well	151	13.83%
Extremely Well	14	1.28%

*155 teachers did not answer this question



Finally, race is once again a factor when considering how remote learning is impacting students:

VARIABLES	likert scale indicating degree to which students coping well with anxiety	Standardized (Beta) Coefficients
Student body more than 50% POC	-0.211*** (0.0523)	-.120
Constant	2.916*** (0.0431)	
Observations	1,092	
R-squared	0.014	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The standardized (beta) coefficient -0.120 can be understood to mean that when a student body is more than 50% students of Color, teachers reporting whether students are coping well with anxiety is .120 standard deviations lower on a 5 point scale (strongly disagree to strongly agree).

likert scale indicating degree to which
students
coping well with stress management

VARIABLES		Standardized (Beta) Coefficient
Student body more than 50% POC	-0.208*** (0.0512)	-.121
Constant	3.018*** (0.0425)	
Observations	1,092	
R-squared	0.015	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

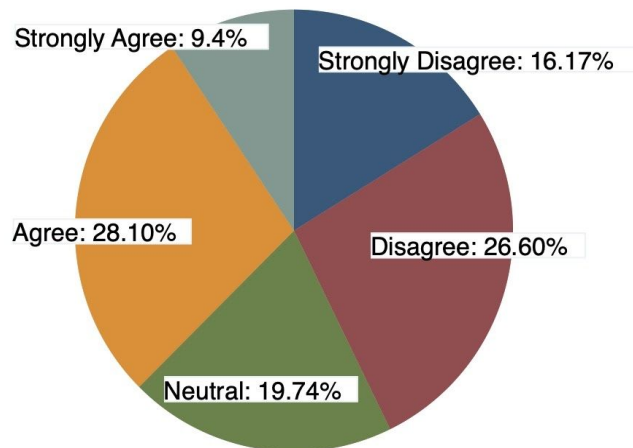
The standardized (beta) coefficient -0.121 can be understood to mean that when a student body is more than 50% students of Color, teachers reporting whether students are coping well with stress is .120 standard deviations lower on a 5 point scale (strongly disagree to strongly agree).

TEACHER PROFESSIONAL DEVELOPMENT

Finally, many teachers indicated that they need more professional development on how to effectively teach remotely if they are to be expected to continue this practice into the 2020-2021 school year. 42.76% of teachers disagree or strongly disagree with the notion that they have received PD to support remote learning.

Percent of Teachers Who Agree They Have Received PD to Support Remote Learning

Strongly Disagree	172	16.17%
Disagree	283	26.60%
Neutral	210	19.74%
Agree	299	28.10%
Strongly Agree	100	9.40%



Percent of teachers who agree with the following statement:

I have received professional development to ensure best practices for remote learning.

Surprisingly, the percentage of students receiving free and reduced lunch (an indication of poverty and thus of school funding) is not a predictor of whether teachers have received PD. Race of the teacher or of the student body also were not predictors of whether a teacher has received PD.

The qualitative responses in this section indicate that PD is one major area of support that districts should work to address:

“I haven’t received ANY professional development, but have sought out my own.”

“I would like professional development on fun, educational games we could play remotely during our morning meetings. I already use Quizlet, Kahoot, and scavenger games.”

“More professional development opportunities on how to use digital platforms that we are not familiar with such as OneNote”

“Clear instructions and support on how to teach remotely. Professional development on how to teach remotely”

“PD on HOW to work with students remotely and to use technology to assist in this.”

“Having professional development on how to teach online.”

“PD on how to teach remotely and help students with their anxiety and stress over the situation”

“I would like more guidance/training/PD in best practice in teaching reading interventions remotely.”

“PD on current "best practices". I am checking and receiving several blogs, newsletters, updates and sites related to our current state of distance learning and best practices.”

“There have been noble efforts to get staff and faculty caught up with the tech applications needed to conduct distance learning, but there needs to be consistent PD when school returns to "normal" to make sure every teacher has a baseline functionality and proficiency with these applications. It's frustrating that we've had to learn these things on our own via online PD. In-person PD as an entire faculty would be more effective.”

“More PD about the learning platform we are using so we can make lessons more professional and issue-free.”

“A structured plan and PD to deliver remote instruction.”

“Communication, how to make a lesson plan for a packet, free resources, I have to find pd on my own, I have to buy worksheets out of my own money.”

“More PD/training on online teaching prior to starting online learning. We started online learning almost immediately with no time to prep, plan, transition etc.”

“PD in technology support besides just sending a bunch of links for me to figure it out myself.”

Arizona Remote Teaching Survey

Demographic Information

What approximate percentage of the students you teach fall into the following racial demographic groups?

Hispanic, Latino/Latina/Latinx : _____

Black, African American : _____

Native American, Alaska Native : _____

Asian, Pacific Islander : _____

Non-Hispanic White : _____

Mixed Race, Two or More Races : _____

Total : _____

What approximate percentage of the students you teach qualify for free and/or reduced lunch?

Which of the following best describes your racial identity?

- Hispanic, Latino/Latina/Latinx
- Black, African American
- Native American, Alaska Native
- Asian, Pacific Islander
- Non-Hispanic White
- Mixed Race, Two or More Races

How many years have you been teaching?

Name of District in which you teach (optional):

Q20 Zip Code of the school in which you teach (optional):



Student Access to Remote Learning

What percentage of your students would you estimate **do not** have the appropriate technology and supports at home to complete remote learning objectives and tasks?

What percentage of your students are communicating digitally with you in a way you or your school/district consider satisfactory?

Please indicate the degree to which you agree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
IEP needs are being accommodated effectively and in accordance with the law through remote learning in my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ELL needs are being accommodated effectively and in accordance with the law through remote learning in my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel supported by administration in serving my students through remote and digital learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What plans has your district communicated about how students with less access will be supported in catching up once regular school attendance resumes?



Student Needs

What percentage of your energy and effort as a teacher is directed to supporting student social-emotional needs as compared to strictly academic needs during remote learning?

Social-Emotional Needs : _____ (1)

Academic Needs : _____ (2)

Total : __100%_____

How well do you feel your students are coping with the anxiety and stressors of trying to complete distance learning objectives during a global pandemic?

	Not well at all (1)	Slightly well (2)	Moderately well (3)	Very well (4)	Extremely well (5)
Student Coping with Stress (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Coping with Anxiety (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How are you supporting student social-emotional needs?



Teacher Support

Please indicate the degree to which you agree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I have received professional development to ensure best practices for remote learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My administrators' requests of me during remote learning are fair and reasonable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are your administrators' expectations of your work during this time?

What sorts of supports would help you best serve your students during remote learning that you are not currently receiving?