EXHIBIT D

STUDY OF STRATEGIES FOR SUPPORT OF FIRST YEAR TEACHERS

Tucson Unified School District Curriculum, Instruction and Professional Development Department Revised October 2019

TUSD staff from the Curriculum, Instruction and Professional Development (CIPD) department conducted a study of strategies for support of first year teachers at racially concentrated and underperforming schools, to mitigate effects of lack of teaching experience. Staff concluded that it would be impossible to conduct its own quantitative study using TUSD teachers, students and schools, for several reasons. First, the number of first year teachers at TUSD is small enough that it would be impossible to control for variables such as different grade levels, different school demographics and different academic profiles. More fundamentally, TUSD simultaneously employs several different strategies to support first year teachers, and without withholding one or more strategies from a control group of first year teachers, it would be difficult to draw any causal conclusions regarding effectiveness of any particular strategy. In these circumstances, TUSD staff determined that the best practical way to conduct a study would be to review other studies and best practices, and compare the results and recommendations from those studies to the strategies used by TUSD, and draw conclusions based on that analysis.

A. TUSD's Shelter and Develop Model

As defined by Rosenberg and Miles¹, shelter strategies for new teachers refer to those that simplify the regular teaching job (i.e. reduced workload, fewer preps, fewer students, reduced hours teaching, or lessening or eliminating outside the classroom responsibilities), while development strategies refer to strategies that give new teachers more time and space to learn their craft (i.e. providing opportunities to learn and practice, observing master teachers, participating in collaborative planning, being observed and receiving feedback).

1. Shelter Strategies Currently Employed to Support First Year Teachers at Racially Concentrated and Underperforming Schools.

TUSD has adopted the following shelter strategies to support first-year teachers

¹ Growing Great Teachers by David Rosenberg and Karen Hawley Miles.

at Racially Concentrated and Underperforming schools.

Sheltering strategies include: reduced class size; reduction in number of classes taught (6-12); reduction in lesson planning responsibilities (K-5); assignment to one classroom for all courses (6-12); limited number of preparations required; no additional first-year teachers in the first-year teacher's grade/content area, no multi-grade level class, class co-taught with another teacher; and common planning time with teachers of same grade/subject.

Human Resource staff and the Regional Superintendent meet with site administrators prior to placing a first-year teacher at a racially concentrated and/or underperforming site and determine the shelter strategies that will be used to mitigate any impact due to the placement. In addition, school administrators may supplement these strategies by providing a "boot camp" designed by the site for first year teachers.²

2. Development Strategies Currently Employed to Support First Year Teachers at Racially Concentrated and Underperforming Schools.

TUSD currently provides support using development strategies for first year teachers at racially concentrated and underperforming schools in three major modes. First and most importantly, the District provides one-on-one, personalized, direct coaching, modeling, feedback and assessment through experienced, trained mentor teachers who have no current class of their own, and whose sole job is to provide support to first year teachers. Second, the District provides (and requires first year teachers to take) classroom-style induction professional development courses covering a range of topics, some unique to TUSD and its systems, but others more generally relating to classroom instruction and management during their first year of teaching. Third, the District provides first-year teachers with regularly scheduled collaborative seminars and study groups that provide opportunities for teachers to gain a deeper understanding treatment of certain areas in greater depth than of the

² This "boot camp" is an on-going cohort (i.e. New-To-Valencia Cohort) that meets on a regular basis with the CSP and is specifically designed to support new teachers at a site level. Topics discussed cover a wide range of subjects that are relevant to a first-year teacher such as instructional practices, site-focused academic data, curriculum implementation, and accessing and utilizing district resources such as the Textbook Distribution Center or Technology Services.

concepts learned in the initial four-day training (Induction).

First-year teacher support at TUSD is based on and follows the methodology developed by the New Teacher Center, a nationally-recognized non-profit organization dedicated to developing effective support for new teachers to accelerate the development of teaching expertise. The approach and learnings from the New Teacher Center are often referred to as the "Santa Cruz model," since the New Teacher Center is based in Santa Cruz. California.

Each of TUSD's major modes of first-year teacher support is described in more detail below.

a) <u>One-on-one, personalized support, modeling and coaching from mentor</u> teachers.

Each first-year teacher works throughout the year with an experienced teacher mentor whose only job is to provide one-on-one personalized support to new teachers (i.e., mentors do not have their own classes to teach). Mentors provide support by co-teaching, modeling, individual assessment and feedback, collection of instructional data, scripting for instructional improvement, and other approaches identified below. Mentors are assigned to first-year teachers in a ratio designed to allow between two to four hours of one-to-one support per week during the first year, plus other supporting tasks for the one-on-one time.³

Working collaboratively with first-year teachers, mentors do the following:

- *Develop a trusting and reflective professional partnership with their assigned first-year teachers.
- *Provide regular on-site support in the form of 1:1 uninterrupted reflective collaboration sessions and classroom visits to each participating teacher with the expectation of two to four hours per week.
- *Provide high-quality, instructionally focused feedback through the Teaching and Coaching Cycle consisting of:
 - o planning and preparing lessons;

³ This is an enhanced amount of expected one-on-one support for first-year teachers at underperforming schools. At other schools, teacher mentors are assigned to first-year teachers in a ratio based on the standard expectation of one to two hours of one-on-one time per week.

- o observing instruction and assessment; and
- o analyzing learning and reflecting on instructional practices.
- *Assist first-year teachers with curriculum development, classroom management, instructional strategies, assessment of student performance, and all aspects of their professional growth. This can be in the form of, but not limited to, modeling best practices, co-teaching, and/or whisper coaching.
- *Assist first-year teachers in developing and adjusting their Individual Learning Plan based on the Danielson Framework for Teaching.
- *Assist and support standards-based lesson planning with an emphasis on incorporating the Gradual Release Model of instruction and NTC's Optimal Learning Environment framework.
- *Engage new teachers in evaluating student work through the NTC Analyzing Student Learning tool.
- *Document interactions and time with teachers and tools used through NTC's Learning Zone.
- *Support and encourage new teachers to engage thoughtfully with students from diverse racial, ethnic, cultural and linguistic backgrounds using culturally responsive pedagogy.
- *Participate in weekly professional learning based on NTC's mentor standards, to support and enhance mentoring skills.
- *Promote self-assessment for effective practices (including video recording, infield coaching) based on NTC's Professional Mentor standards.
- *Communicate program vision and components to site administrators at the beginning of the school year.
- *Communicate on a consistent basis with site administrators and appropriate support staff throughout the school year.
- *Complete an end-of-the-year program evaluation.

A key assessment of the success of the mentor program is based on comparison of assessments of teaching skills of first-year teachers at the beginning of the school year with the end-of-year assessment. A copy of the assessment rubric (which is derived from the Danielson evaluation instrument used by the District but focused on first year teaching development) is attached hereto as Exhibit 1; an example of the comparison between beginning and end of the year assessments is attached as Exhibit 2.

Experienced teachers must meet the following requirements to serve as mentors to

first year teachers:

- Be recognized as exemplary classroom teachers and teacher leaders;
- Have at least five years of successful teaching experience;
- Possess effective interpersonal and communication skills;
- Demonstrate commitment to lifelong learning;
- Demonstrate respect for multiple perspectives;
- Have experience working with adult learners and providing professional learning;
- Be aware of district and state resources and standards;
- Demonstrate knowledge of curriculum, instruction and assessment; and
- Preferably hold a master's degree.

After hiring, the mentors are trained in NTC's Professional Learning Series. In this training, participants learn the critical knowledge, skills, and tools to initiate and maintain effective mentoring relationships with novice teachers that result in instructional growth. Mentors practice using multiple data points to assess practice and provide meaningful feedback to teachers. The goal is to support teachers to create and sustain Optimal Learning Environments in which the diverse needs of every learner are addressed with an unwavering attention to equity and continuous academic, social, and emotional growth.

The training enables participants to develop the instructional leadership skills (foster collaborative professional cultures; use data to improve teaching and learning; collaborate with stakeholders; advocate for the profession and student learning) to coach/mentor/lead for Optimal Learning Environments in which teachers create emotionally, intellectually, and physically safe environments, implement equitable, culturally responsive, and standards-aligned curriculum and instruction, and meet the diverse needs of every learner. The training also prepares mentors to engage in strategic instructional coaching cycles (e.g., Plan/Prepare, Teach/Assess, and Analyze/Reflect) focused on standards, pedagogy, and research to advance teaching practice and student learning. The training focuses mentors on creating and maintaining collaborative, professional relationships and skills (e.g., communicate effectively; build effective relationships with stakeholders and colleagues; demonstrate and maintain mentor responsibilities, integrity, and ethical conduct) to advance teaching and learning focused on student outcomes. The training includes specific techniques for use of coaching language and stances and

provision of feedback by modeling active listening.

b) Required induction courses.

TUSD requires all first-year teachers to attend a four-day induction training session, on contract time but before the academic teaching year begins. This training provides an overview of the District initiatives (Curriculum), cultural and instructional expectations (Creating Optimal Learning Environments, and classroom management training.

For first-year teachers at racially concentrated and/or underperforming sites, the District is providing additional sessions on the Creating Optimal Learning Environments (COLE) training that all first-year teachers attended, as well as sessions addressing culturally responsive classroom management and multicultural curriculum strategies.

These customized sessions include the following:

Creating an Optimal Learning Environment

- 1. Implicit bias training to address origins of low teacher expectations that maintain the achievement gap.
- 2. Culturally Responsive Teaching Practices
- 3. SPARKS TUSDs instrument for effective Tier I instruction through culturally responsive teaching

Classroom Management:

- 1. Establishing respectful relationships: Foundation for culturally responsive teaching
- 2. Student Resistance: a re-examination of student behavior
- 3. Establishing an Inclusive Environment: Culturally responsive classroom management

Curriculum:

- 1. TUSD's Multicultural Curriculum
 - a. Accessing students' Funds of Knowledge
 - b. Integrating cultural knowledge
- 2. Social Justice Education
 - c) Collaborative, school-based teaching groups.

Finally, TUSD provides first-year teachers with regularly scheduled collaborative seminars and study groups that provide opportunities for teachers to gain a deeper understanding of the concepts learned in the initial four- day training (Induction). These activities also facilitate opportunities for networking, professional dialogue and reflection. Although not required, the teacher mentors guide and suggest appropriate participation based on observations of their first-year teachers. For second year teachers who scored below "basic" proficiency on their first year EOY assessments, additional seminars and study groups may be part of their support (Exhibit X: First Year Teacher Plan).

In SY 2018-19, TUSD offered first-year teachers the following seminars and study groups below:

Lesson	Routines &	Classroom	Student	Assessment
Planning	Practice	Management	Engagement	
Danielson	Danielson Danielson		Danielson	Danielson
Framework	Framework for	Framework for Framework		Framework for
for Teaching	Teaching	Teaching	for Teaching	Teaching
Lesson Design	Creating an	Creating an	Creating an	Differentiating
	Optimal	Optimal	Optimal	Instruction
	Learning	Learning	Learning	
	Environment	Environment	Environment	
Effective	ABCs of Guided	Adolescent	Effective	Effective
Elements of	Reading and	Behavior	Elements of	Elements of
Instruction	Daily 5		Instruction	Instruction
ABCs of	Classroom	Classroom	Collaborative	Whole Brain
Guided	Management	Management Engagement		Learning
Reading &			Strategies	
Daily 5				
ABCs of	Collaborative	Relationship	Culturally	
Guided	Engagement	Building	Relevant	
Reading &	Strategies		Pedagogy and	
Daily 5			Instruction	
Differentiating	First 10 Days	Trauma in the		
Instruction		Classroom		

Lesson	Math Daily 3	First 10 Days	
Planning			
Math Daily 3	Microsoft 365	Social and	
		Emotional	
		Learning	
Whole Brain	Promethean	Relationship	
Learning	Playground	Building	
District	Synergy		
Curriculum	Student		
	Information		
	System		
Math	Gradebook		
ELA	Attendance		
Language			
Acquisition			
Fine and			
Performaing			
Arts			
Social Studies			
Science			
Exceptional			
Education			
Career and			
Technical			
Education			

B. Review of Studies and Best Practices

TUSD staff conducted a study of current professional literature (studies, papers, and materials from respected institutes and other sources) to determine if there were other approaches to support for first year teachers that the District should consider. A list of the principal materials reviewed is attached as Exhibit 3 hereto. The sources consulted included materials and studies from the New Teacher Center, described above, and Education Resource Strategies, another nationally recognized non-profit educational institution which focuses on issues relating to new teacher support and training.

C. Conclusions and Recommendations

The study of current professional literature on new teacher support confirms that both mentoring and new teacher induction programs (similar to mentoring and induction courses at TUSD) are well recognized as the most important methods for support of first-year teachers. Based on a review of the New Teacher Center's two applicable standards for these strategies (Mentor Practice Standards and Teacher Induction Program Standards) and comparison with TUSD programs, TUSD staff believe that the TUSD programs meet the New Teacher Center standards of practice. There are a number of accepted methods through which mentoring may be delivered, which largely fall into two categories: ones in which mentoring is added to other duties of a classroom teacher or other experienced educator who has other regular duties at the school (perhaps for an additional stipend to take on the duties); and ones in which mentoring is delivered by an experienced teacher who has no classroom or other duties besides mentoring. TUSD has chosen this latter model, and there is nothing in the literature that suggests that TUSD should reconsider that choice.

EXHIBIT 1

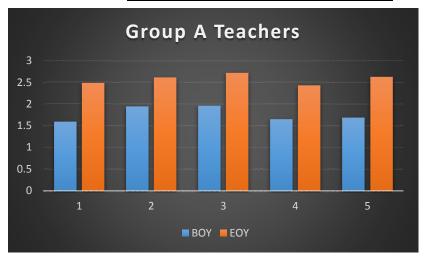
QUESTION 1-Lesson Planning						
Unsatisfactory =1	Basic =2	Proficient =3	Distinguished =4			
 0-1 Indicators are present Teacher lesson plans include: standards based objectives activities aligned to the objective differentiation for students closure/checks for understanding 2-3 indicators are present Teacher lesson plans include: standards based objectives activities aligned to the objective differentiation for students closure/checks for understanding 2-3 indicators are present Teacher lesson plans include: standards based objectives activities aligned to the objective 2-3 indicators are present Teacher lesson plans include: standards based objectives activities aligned to the objective closure/checks for understanding 		All 4 indicators are present Teacher lesson plans include: • standards based objectives • activities aligned to the objective • differentiation for students • closure/checks for understanding	Proficient Category PLUS Interdisciplinary and/or culturally relevant resources			
	QUESTION 2-Rout	ines and Procedures				
Unsatisfactory =1	Basic =2	Proficient =3	Distinguished =4			
No evidence of routines in use.	Inconsistent use of routines.	All routines function smoothly with little or no loss of instructional time.	All routines function smoothly with little or no loss of instructional time AND student led routines and procedures are observed.			
	QUESTION 3-Clas	sroom Management				
Unsatisfactory =1	Basic =2	Proficient =3	Distinguished =4			
No evidence of established expectation for student conduct. Limited and/or inconsis evidence of expectation for student for student conduct.		Established and implemented expectations for student conduct.	Established and implemented expectations for student conduct. Students monitor behavior of self and others.			

	QUESTION 4-Student Engagement						
Unsatisfactory =1	Basic =2	Proficient =3	Distinguished =4				
 0-1 indicators are present Students are asked to engage in activities and assignments (whole class, small groups, pairs and individuals) that: Promote learning Require student thinking Emphasizes depth over breadth Encourage students to explain their thinking 	 2-3 indicators are present Students are asked to engage in activities and assignments (whole class, small groups, pairs and individuals) that: Promote learning Require student thinking Emphasizes depth over breadth Encourage students to explain their thinking 	All 4 indicators are present Students are asked to engage in activities and assignments (whole class, small groups, pairs and individuals) that: • Promote learning • Require student thinking • Emphasizes depth over breadth • Encourage students to explain their thinking	Proficient category PLUS Opportunities are provided for students from all racial, ethnic, cultural, and linguistic backgrounds to initiate further inquiry.				
QUES	STION 5-Questioning	and Discussion Techi	niques				
Unsatisfactory =1	Basic =2	Proficient =3	Distinguished =4				
There is little or no assessment or monitoring of student learning: feedback is absent, or of poor quality. Students do not appear to be aware of the assessment criteria and do not engage in self-assessment	Questions/prompts/assess ments are rarely used to diagnose evidence of learning.	Questions/prompts/assess ments that include racial, ethnic, cultural, and linguistic referents are used to diagnose evidence of learning.	Questions/prompts/assess ments are used regularly to diagnose evidence of learning by individual students. The teacher successfully differentiates instruction to address individual students' misunderstanding. Assessment strategies for ELL are evident.				

EXHIBIT 2

First Year Teachers at Underperforming Schools

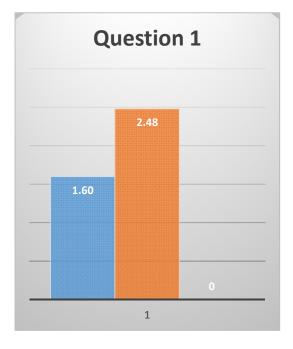
Pre and Post Observational Rubric



BOY= Beginning of year

EOY= End of year

1.6	1.95	1.97	1.65	1.7	BOY
2.48	2.61	2.73	2.43	2.63	EOY
Q1	Q2	Q3	Q4	Q5	



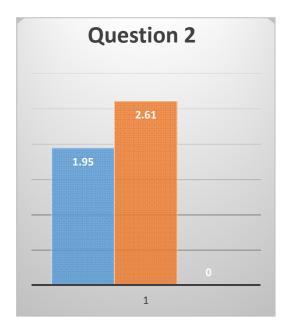
Question 1: Lesson Planning

1.6 BOY Avg score out of 4

2.48 EOY Avg Score out of 4

0.88 Increase

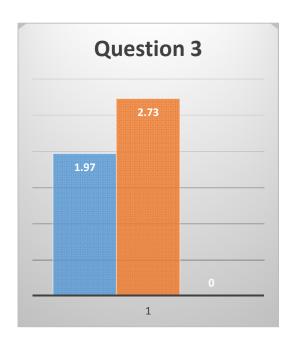
	Beginning of Year		End of Year		
Level	# of teachers	% of total	# of teachers	% of total	Change
Unsatisfactory	48	52.10%	7	7.60%	-44.50%
Basic	33	35.90%	43	46.70%	10.80%
Proficient	11	12.00%	33	35.90%	23.90%
Distinguished	0	0.00%	9	9.80%	9.80%
Totals	92	100.00%	92	100.00%	0.00%



Question 2 Routines and Procedures

1.95 BOY Avg score out of 4
2.61 EOY Avg Score out of 4
0.66 Increase

	Beginning of Year		End of Year		
Level	# of teachers	% of total	# of teachers	% of total	Change
Unsatisfactory	25	27.20%	3	3.30%	-23.90%
Basic	47	51.10%	40	43.50%	-7.60%
Proficient	20	21.70%	39	42.40%	20.70%
Distinguished	0	0.00%	10	10.80%	10.80%
Totals	92	100.00%	92	100.00%	0.00%



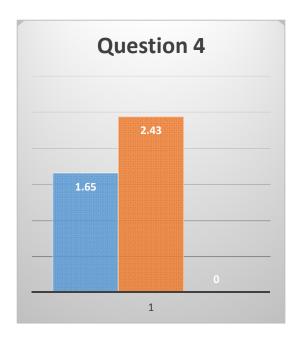
Question 3 Classroom Management

1.97 BOY Avg score out of 4

2.73 EOY Avg Score out of 4

0.76 Increase

	Beginning of Year		End of		
Level	# of teachers	% of total	# of teachers	% of total	Change
Unsatisfactory	27	29.30%	6	6.50%	-22.80%
Basic	41	44.60%	29	31.50%	-13.10%
Proficient	24	26.10%	41	44.60%	18.50%
Distinguished	0	0.00%	16	17.40%	17.40%
Totals	92	100.00%	92	100.00%	0.00%



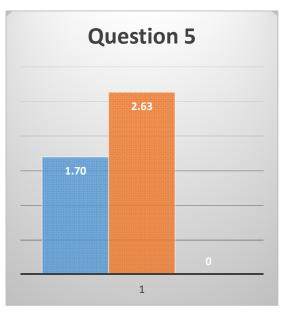
Question 4 Student Engagement

1.65 BOY Avg score out of 4

2.43 EOY Avg Score out of 4

0.78 Increase

Beg	inning of Year		End of	Year	
Level	# of teachers	% of total	# of teachers	% of total	Change
Unsatisfactory	40	43.50%	12	13.00%	-30.50%
Basic	44	47.80%	34	37.00%	-10.80%
Proficient	8	8.70%	40	43.50%	34.80%
Distinguished	0	0.00%	6	6.50%	6.50%
Totals	92	100.00%	92	100.00%	0.00%



Question 5 Questioning & Discussion Techniques

1.7 BOY Avg score out of 4

2.63 EOY Avg Score out of 4

0.93 Increase

	Beginning of Year		End of		
Level	# of teachers	% of total	# of teachers	% of total	Change
Unsatisfactory	37	40.20%	6	6.50%	-33.70%
Basic	47	51.10%	33	35.90%	-15.20%
Proficient	7	7.60%	42	45.70%	38.10%
Distinguished	1	1.10%	11	11.90%	10.80%
Totals	92	100.00%	92	100.00%	0.00%

EXHIBIT 3

Study of Effective Strategies concerning placement of beginning teachers, including mitigating strategies for any such placements.

Research	Strategies
June 2016 BEST PRACTICES IN TEACHER AND ADMINISTRATOR INDUCTION PROGRAMS California County Superintendents Educational Services Association http://ccsesa.org/wp-content/uploads/2016/06/Best-Practices-in-Teacher-and-Administrator-Induction-Programs.pdf	 Mentoring plays a key role in effective induction programs for teachers and administrators. When selecting mentors, important attributes include: character, competence, experience, communication skills, interpersonal skills, and an understanding of the setting and context in which a mentee works. The type and intensity of training and support provided to mentors may impact the efficacy of an induction program. Ongoing support and scheduling adjustments to compensate for the time and effort needed to sustain effective mentorships encourages participation and raises overall program quality. In 2011, renowned education researchers Richard M. Ingersoll and Michael Strong published a meta-analysis of 15 empirical studies—conducted over the previous 25 years—examining teacher induction programs. 6 Ingersoll and Strong found that, despite varying program components and intensity, induction programs have a consistently positive impact in three areas: teacher retention, classroom instructional practices, student achievement. (Text adapted from: Ingersoll, Op. cit., pp. 50-51.) Formal or Informal Orientation: Includes a review of basic school procedures and policies such as how to order supplies, how to organize a classroom, and where to find instructional resources. Mentoring: Mentors and mentees are required to meet periodically to review progress and discuss challenges. Mentors conduct observations and assessments and provide feedback. Professional Development: Incorporates the opportunity to engage in ongoing learning through coursework, in-service development, and/or participation in professional learning communities (PLCs). Instructional Practice Model: This model links induction with local and state standards for teaching, using skilled mentors to help bridge the gap between theory and practice for new teachers. Induction may last two or more years and offers teachers continued opportunities for in-depth learnin

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		 In addition, experts urge districts to consider the extent to which participant confidentiality should be protected to ensure an honest dialogue between mentors and new teachers. The NEA Foundation recommends introducing clear confidentiality policies at the beginning of a mentorship. (Jones, as cited by: "Creating a Teacher mentoring Program," Op. cit., p. 6.) To attract mentors, most districts provide incentives, such as a stipend("Creating a Teacher Mentoring Program," Op. cit., p. 9.)
2	2000	Note: This brief focuses on support for teachers who have completed a
	DESIGNING SUPPORT for BEGINNING TEACHERS	formal preparation program, not on the increasing number of
	WestED	"alternative-route" teachers who have been hired without such
	by	preparation and are expected to receive their initial teacher training
	Kendyll Stansbury	while on the job.
	Joy Zimmerman	Most such programs identify beginning teachers as those who are
		either fresh out of a teacher preparation program or who have been
	https://www.wested.org/online_pubs/tchrbrief.pdf	teaching only one or two years. But, increasingly, districts and schools
		recognize the need to also offer some degree of support for teachers
		who, while not new to the classroom per se, are new to the school, the district, or the state.
		Low-intensity support strategies make minimal demands on district and
		school resources:
		Orienting new teachers. The week before school, beginning teachers
		receive a formal orientation to the community, district, curriculum,
		and school.
		Adjusting working conditions:
		 Administrators can reduce the number of students in beginners' classrooms
		 refrain from assigning them the most challenging students
		o minimize their extracurricular and
		committee assignments.
		At the elementary school level:
		 administrators can avoid assigning combination grades.
		At the secondary school level:
		o administrators can make sure that new teachers' course schedules
		require as few separate preparation efforts as possible.
		 avoid assigning schedules that require new teachers to change classrooms during the day.
		classrooms during the day.

o adequately supply textbooks, desks, supplementary materials, and

basic supplies.

		Research from the California New Teacher Project, a varied set of induction programs, indicates that high-intensity support strategies, such as those described below, are more effective than the less intensive strategies at improving beginning teaching performance (Dianda et al., 1991).
		 Selecting and training effective support providers. Minimally, support providers should be teachers who are successful in their own classrooms and articulate about their practice. But these are only minimum requirements. Because working with beginning teachers is different from working with children and youth, even the most outstanding K-12 teacher is not automatically suited by skill or temperament to collegial work with other adults. Providing release time. Release time can be used in a number of ways to support beginning teachers. For starters, the beginning teachers themselves can be released to attend seminars, to work with support providers to analyze their students' work and the instruction it reflects, or to observe other teachers for a specific purpose. Schools and districts can offer mini-courses or seminars during release time, after school, in the evening, or on weekends, and on their own
3	Research Link / The Benefits of Mentoring John H. Holloway http://www.ascd.org/publications/educational-leadership/may01/vol58/num08/The-Benefits-of-Mentoring.aspx	 Mentors Need Training: Diane Kyle, Gayle Moore, and Judy Sanders (1999) note that prospective mentors should participate in professional development to learn about the mentoring process and what is expected of them before assuming their duties. Their research also shows that mentor teachers need support and the opportunity to discuss ideas, problems, and solutions with other mentor teachers. Carolyn Evertson and Margaret Smithey (2000) found that novice teachers working with trained mentors possessed a higher level of teaching skills than new teachers whose mentors were not trained. This finding demonstrates that the mere presence of a mentor is not enough; the mentor's knowledge of how to support new teachers and skill at providing guidance are also crucial. Model Programs: The evidence is convincing: A focused, systematic mentoring program has a positive influence on the performance of new teachers—and is advantageous to mentors as well. Above all, this support for new

	teachers benefits their students
Beginning Teacher Induction: What the Data Tell Us Induction is an education reform whose time has come. By Richard M. Ingersoll, Phi Delta Kappan May 16, 2012 https://www.edweek.org/ew/articles/2012/05/16/kappan_ingersoll.h31.htm	 Changes in the Teaching Force: The first trend is what we call the "ballooning" of the teaching force. After two decades of flat growth, since the mid-1980s, the teaching force in the U.S. has dramatically increased in size. Secondly, the ballooning has meant an upsurge in hiring and has resulted in another equally dramatic trend that we have called a "greening" of the teaching force. In 1988, there were about 65,000 first-year teachers; by 2008, this number had grown to over 200,000 A third and final trend we discovered reveals a sobering side to this greening. Teacher attrition—teachers leaving teaching—is especially high in the first years on the job. In analyses of national data, we've found that neither the muchheralded mathematics and science teacher shortage (Ingersoll & Perda, 2010) nor the minority teacher shortage (Ingersoll & May, 2011) is primarily due to insufficient production of new teachers, as is widely believed. In contrast, the data indicate that these school staffing problems are to a significant extent the result of a "revolving door," where large numbers of teachers depart teaching long before retirement. Moreover, the data show that beginning teachers, in particular, report that one of the main factors behind their decision to depart is a lack of adequate support from school administrators (Ingersoll, 2003).
	 Induction Programs Proliferate: Our analyses show there has been a simultaneous increase in beginners and decrease in veterans. Beginners are now the largest group within one of the largest occupations in the nation, and these beginners have steadily become more prone to quickly leave teaching. All of this suggests a strong increase in the need for support programs. Does Induction Matter?: Does participation in induction slow the high attrition of beginners?

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			first year on the job (Smith & Ingersoll, 2004; Ingersoll & Smith, 2004).
		•	The data also revealed that the various types of induction supports,
			activities, or practices rarely existed alone; schools or districts usually
			provide beginning teachers with different "packages" or "bundles" of
			components or supports.
			 working with a mentor and having regular supportive
			communication with one's principal, another administrator, or one's department chair.
			o such as participation in a seminar for beginning teachers,
			common planning time with other teachers in the same
			subject, a reduced course load, and assistance from a
			classroom aide.
			 The more comprehensive the induction program, the better
			the retention.
5	Six Steps to an Effective Mentoring Program	•	Novice teachers and principals agree that if one doesn't already exist,
			a district-wide mentoring program should be set in place before the
	By Joshua T.D. Alexander and M. Wayne Alexander		school year begins. At the initial meeting, teacher-mentors should
			meet with beginning teachers to set up goals and objectives for the
			year.
	http://www.aasa.org/content.aspx?id=10502	•	District-wide training establishes common mentoring practices so
			novice teachers assigned new schools their second or third year have
			familiar mentoring experiences.
			 Specifically, training is necessary in four areas: (1) observation
			techniques, (2) methods to identify classroom issues, (3)
			establishing expectations for the school year and (4)
			communicating these expectations (Fullan, 2001; Moir, 2003;
			Ingersoll and Smith, 2004; Wong, 2004; Boss, 2006;
			Alexander, 2007). With continuous training, mentors and
			novice teachers will develop an understanding of that which
			is expected of each of them and how to effectively work
			together.
		•	New teachers want to observe model classrooms and receive
			feedback on their own practices. They believe principals should
			encourage new teachers to observe their successful colleagues'
			classrooms. The effective model provides both a structure for
			observing and learning good teaching techniques and opportunities
			to observe these techniques in practice.
			Mentoring won't prevent new faculty members from leaving the
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		standards, documentation of mentoring conversations, and data
		collection on various components of classroom practice ensures a
		solid structure for focusing on continuous instructional growth.
7	https://www.erstrategies.org/cms/files/4046-growing-great-teachers-	 One major aspect of improving educational outcomes for at-risk
	report.pdf	students requires high-quality instruction provided by teams of
		well-trained and skilled teachers. However, sustaining such a
		workforce of teachers is challenging due high turnover in the
		schools with the most challenges. An in-depth analysis of new
		teacher supports performed by Education Resource Strategies,
		Inc. outlined in Growing Great Teachers reveals that investing in
		more strategic preparation for new teachers can improve
		learning outcomes.
		 To improve the effectiveness and retention of new teachers,
		many K-12 leaders are investing in models that emphasize well-
		supported, pre-service clinical practice for rookie teachers. These
		models ideally provide both shelter (i.e. reduced workload, fewer
		preps, students, hours teaching, or outside-the-classroom
		responsibilities) and development (i.e. opportunities to learn
		and practice, observing master teachers, participating in
		collaborative planning, practicing skills, being observed and
		receiving feedback), gradually ramping up teaching
		responsibilities while providing expert-led, curriculum-connected
		professional learning support for rookies.
		 The report offers five recommendations for training new
		teachers, which if implemented, could increase students' learning
		by an average of 3.5 to 4.2 months in one year compared to what
		research indicates they would otherwise learn. Rosenberg and
		Miles recommend that schools work with high-quality teacher
		preparation partners, place well-supported new teachers in
		otherwise hard-to-staff positions, create multi-year retention
		incentives, reallocate existing school investments in favor of
		targeted support for new teachers, and design schools to support
		new teachers If there is one thing that education practitioners
		and policymakers can agree on, it's this—transforming
		educational outcomes for students, especially students growing
		up in low-income communities, requires high-quality, engaging
		instruction provided by teams of skilled educators.
		1. Work with a portfolio of high-quality teacher preparation partners
		including those that emphasize pre-service clinical practice.
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- 2. Place well-supported rookies in otherwise hard-to-staff positions where the next best alternatives are often long-term substitutes or less effective teachers.
- 3. **Create multi-year retention incentives**, including incentives that make teaching economically feasible for candidates from historically underrepresented communities.
- 4. Reallocate and target existing school and system-level investments including Title I and II dollars and other professional development investments, in favor of targeted supports for rookie teachers.
- 5. **Design schools to support rookie teachers** through Strategic School Designs—i.e. deliberate use of people, time, and money—that enable targeted instruction for students, leadership opportunities for effective teachers, and a powerful culture of professional learning that rapidly raises the instructional bar for all teachers. (In the rest of the paper, we offer several examples of these designs.)
 - Incoming teachers require intensive training prior to the start of the school year to help ground them in district- and school-level norms, culture and instructional expectations.
 - Increasing the diversity of the new teacher pipeline. Like Americans in any sector of our economy, teachers of color are more likely to come from lower-income households. This means that system leaders who seek to diversify their teaching force should work with their partners to mitigate the total costs incurred by incoming candidates.