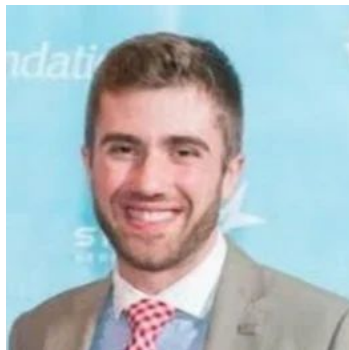# Teacher Attrition in DC:
A Story of School Demographics, Teacher Characteristics & School Climate

Kimberly Erickson, Jillian Fritch-Stump,
Keenan Kelley & Maggie Lauer

Kimberly Erickson, Jillian Fritch-Stump,
Keenan Kelley & Maggie Lauer

DISTRICT OF COLUMBIA
PUBLIC SCHOOLS

Our Personal Connection to Teacher Attrition

Keenan Kelley
8 Years of Teaching & Leading PreK-12 Education

Jillian Fritch-Stump
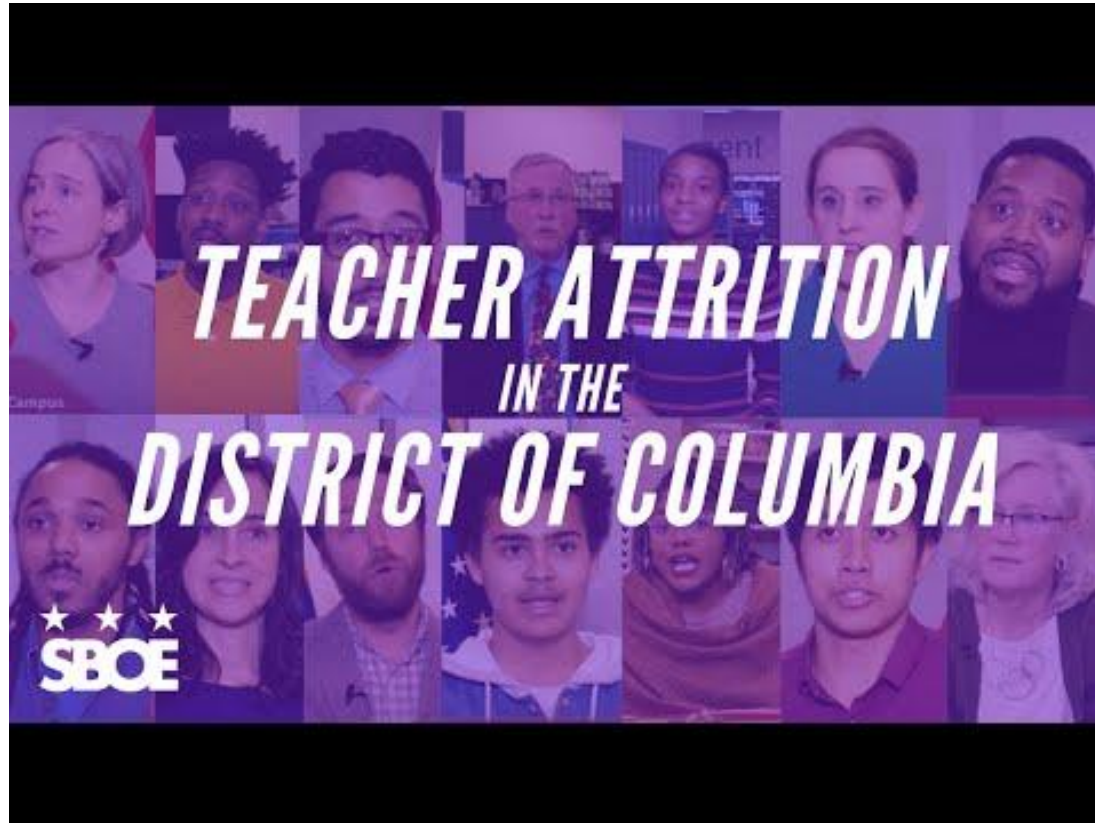Teaching & Leading PreK-12 Education

Kimberly Erickson
Director of Special Education K-12
5 Years of Elm. Teaching Experience

Maggie Lauer
7 Years Teaching Music Education

Introduction to Problem of Practice

Problem of Practice

- **Existing issues of teacher attrition vs. added factors due to Covid-19**
- **Correlations between school demographics, teacher characteristics and school climate**
  - Charter schools vs. public schools
  - Experience, teacher attitudes
  - Lack of administrative support
- **Research Question:** *What factors are associated with teacher attrition in D.C. schools?*

Our Data

- Survey conducted **March 2021** by D.C. State Board of Education
- Responses from **1060 D.C. teachers** across 185 schools
  - All DCPS schools and most charter schools represented
- Important context:
  - Many teachers were returning to in-person teaching
  - Beginning of COVID-19 vaccine rollout
  - Many teachers reflecting on full-year of virtual teaching

Dependent Variable

- Composite of 4 survey questions about willingness to leave teaching
- Likert Scale from 1 to 9
  - 1 Strongly Disagree about desire to leave teaching
  - 9 Strongly Agree about desire to leave teaching
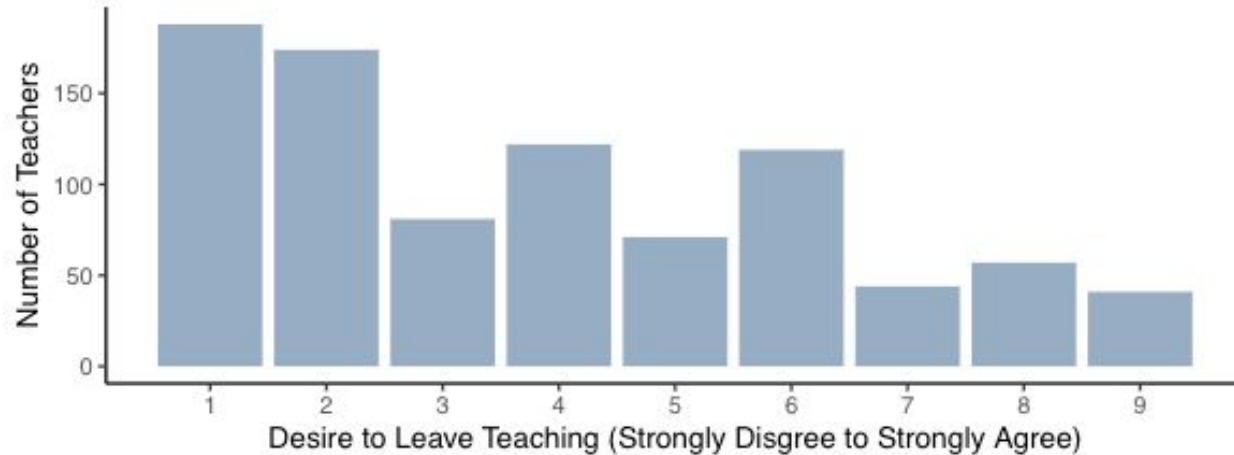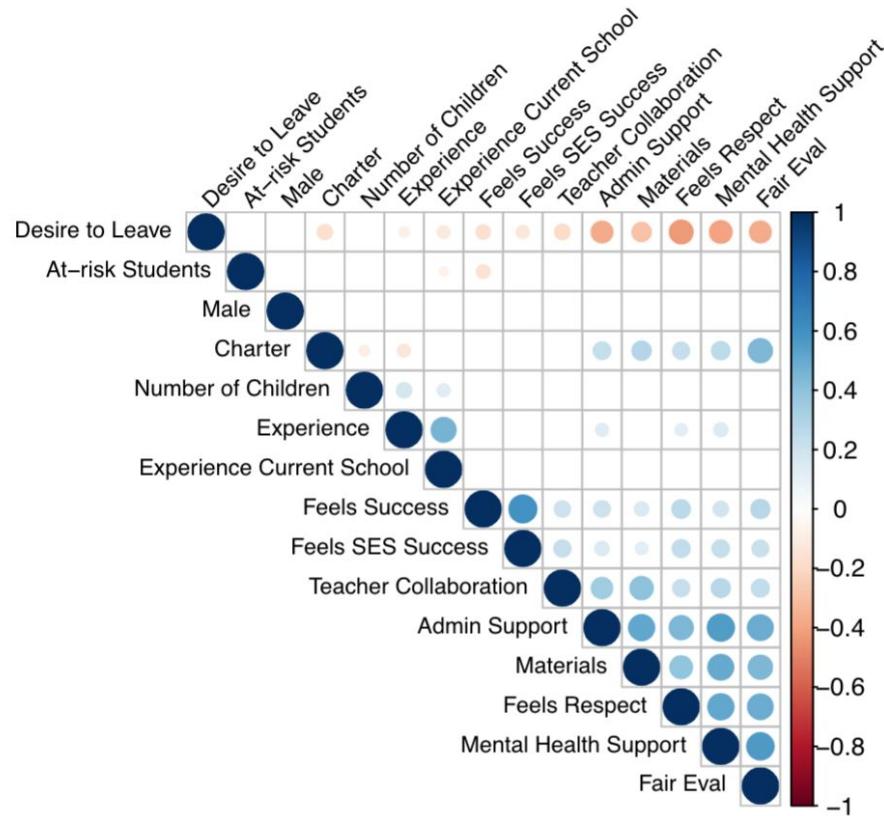
Diving into our Predictors

School Demographics

Teacher Characteristics

School Climate
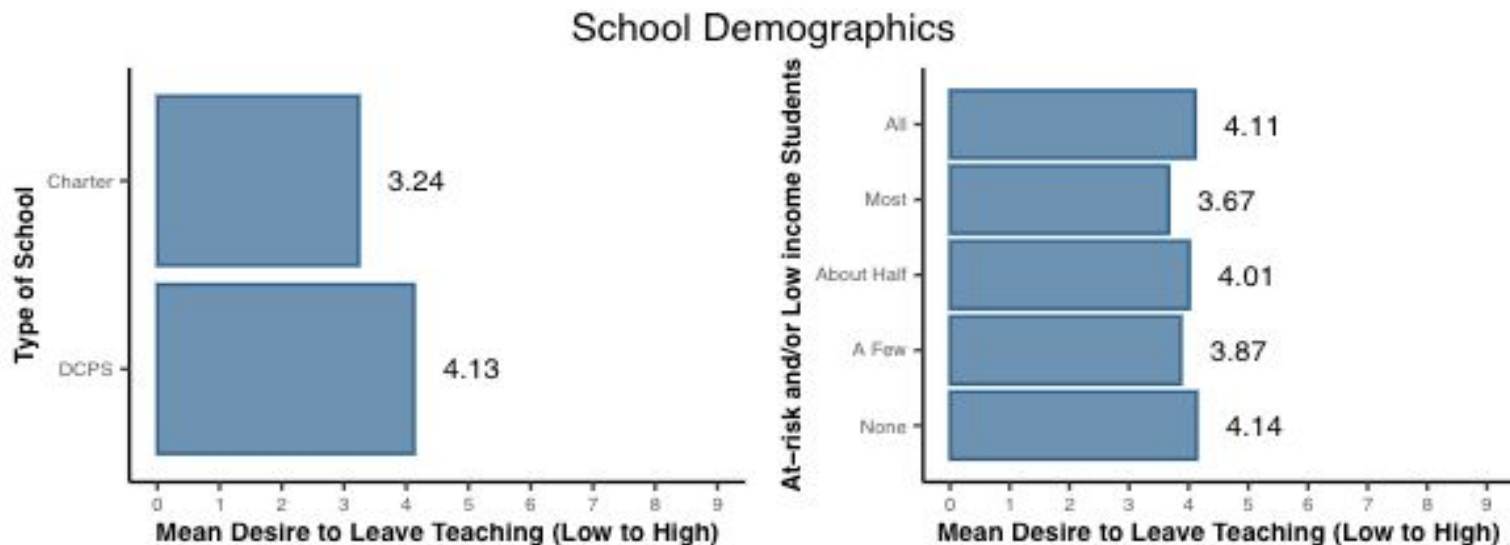
Correlations between Variables

	Desire to Leave
Male	-0.064
Number of Children	-0.058
Experience	-0.076
Experience Current School	-0.119
Charter	-0.168
At-risk Students	0.010
Admin Support	-0.363
Teacher Collaboration	-0.183
Materials	-0.286
Mental Health Support	-0.391
Fair Eval	-0.366
Feels Success	-0.155
Feels SES Success	-0.129
Feels Respect	-0.427
Desire to Leave	1.000

School Demographics Conditional Means

More negative views in DCPS

No meaningful relationship based on proportion of at-risk students

School Demographics

Type of School
- Charter: 3.24
- DCPS: 4.13

Mean Desire to Leave Teaching (Low to High)

At-risk and/or Low income Students
- All: 4.11
- Most: 3.67
- About Half: 4.01
- A Few: 3.87
- None: 4.14

Mean Desire to Leave Teaching (Low to High)

Teacher Characteristics Conditional Means

Teacher Characteristics
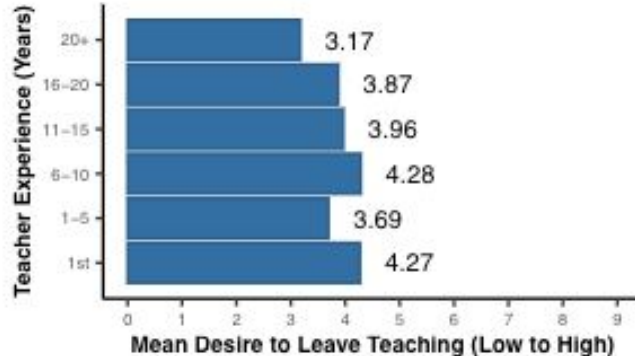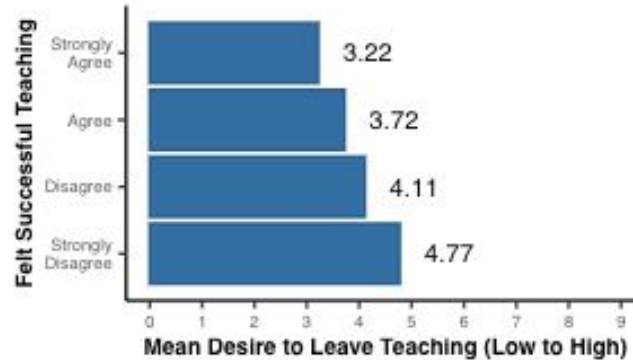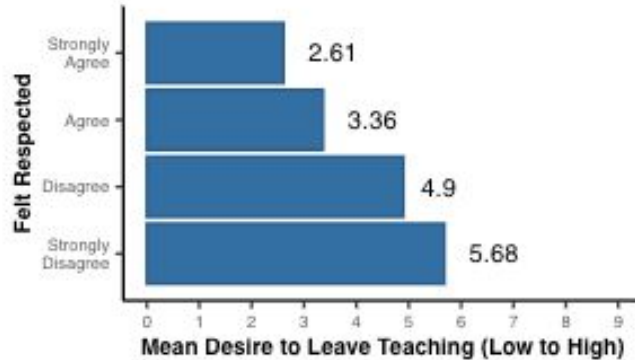
Negative relationship between **feels respected** and desire to leave teaching

Negative relationship between **feels successful** and desire to leave teaching

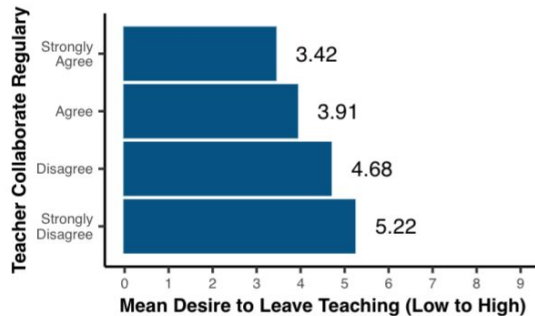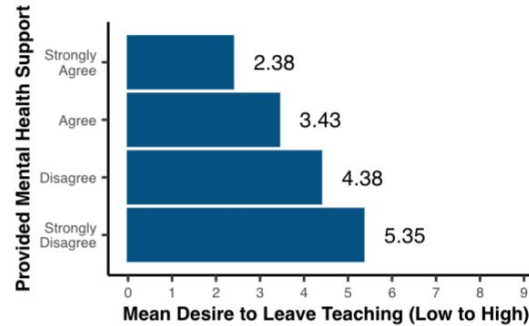No meaningful relationship based on **teacher experience**
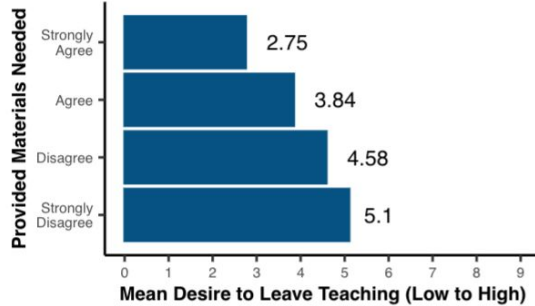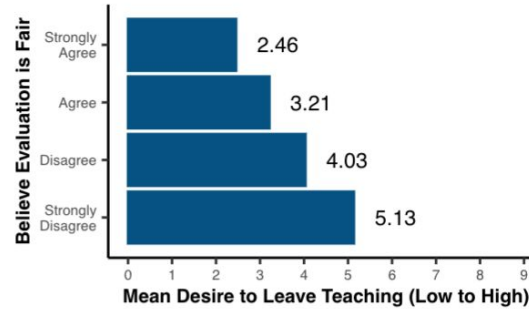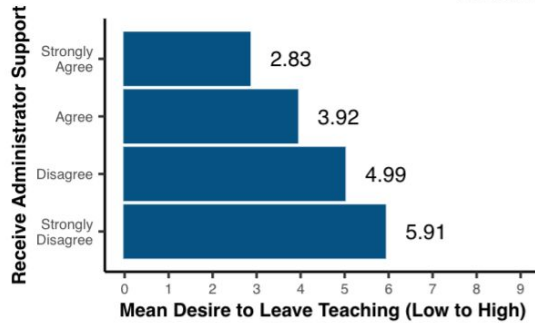
School Climate

School Climate Conditional Means

Negative relationship between **all five variables** and desire to leave teaching

IVs include:
- Admin Support
- Fair Evaluations
- Materials
- Mental Health Supports
- Teachers Collaboration

Our Linear Regression

Table 2: Coefficient-Level Estimates for Teachers' Desire to Leave Teaching

| Predictor	B	SE	t	p
Intercept	9.05	0.624	14.50	<0.001
Charter Schools	0.30	0.258	1.18	0.240
At-risk students	-0.06	0.088	-0.68	0.497
Feels Respected	-0.65	0.135	-4.80	<0.001
Feels Successful	0.03	0.141	0.20	0.841
Experience	-0.10	0.075	-1.38	0.170
Admin Support	-0.44	0.163	-2.70	0.007
Teacher Collab	-0.19	0.149	-1.28	0.200
Fair Eval	-0.36	0.149	-2.41	0.017
Materials	-0.04	0.148	-0.26	0.798
Mental Health Support	-0.18	0.153	-1.15	0.251

RMSE

2.146

Cross-Validation K-Fold

RMSE K-Fold Cross-Validation Density Plot
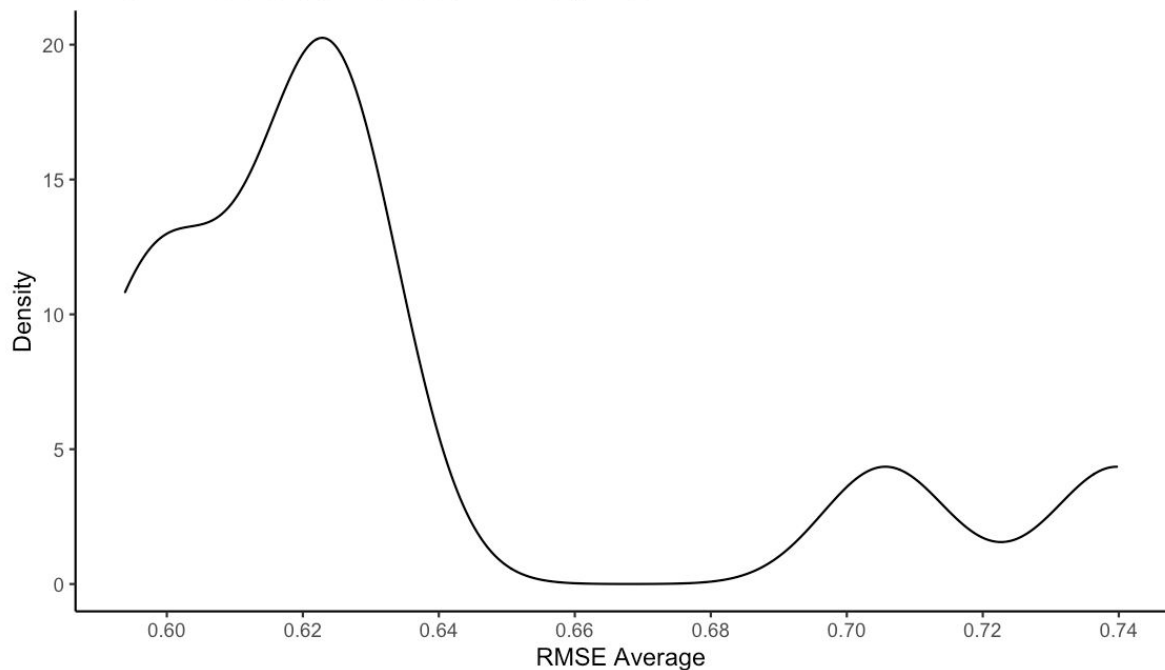
RMSE	R²
.636	.226

Cross-Validation Monte Carlo

RMSE Monte Carlo Cross-Validation Density Plot

RMSE	R²
.639	.223

Key Findings

School Demographics

- No statistically significant variables in regression model
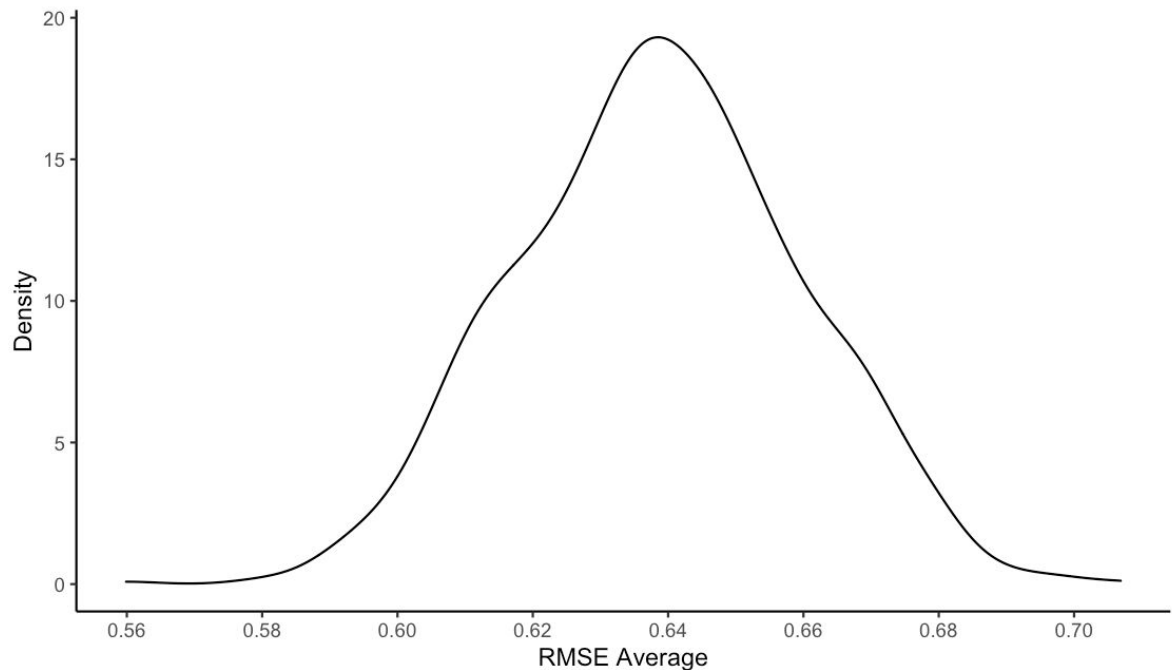
Teacher Characteristics

- **Feeling of respect significant**
- Experience and feels successful not significant

School Climate

- **Admin support & Fair evaluation significant**
- Materials and mental health support, teacher collaboration not significant

Limitations to study

- Not generalizable
- Dependent variable reflects average feelings rather than a decision to stay or leave
- Limited to survey questions asked

Recommendations

Leadership Matters!
- School leaders can focus on:
  - Building respect
  - Supporting teachers
  - Taking feedback on evaluations