

Online Supplemental Appendix A: Variable Construction

Teacher-Level Variables

Race & Gender

The state administrative data we use contain a teacher race/ethnicity variable with seven possible response options: Asian, Black/African American, Hispanic, Native American/Alaskan Native, Native Hawaiian/Pacific Islander, two or more races, or white. District personnel is responsible for selecting one option from this list for each teacher. The Arkansas teacher workforce is, on average, approximately 88% white, 9% Black, and 1% Hispanic with all other options for the race/ethnicity variable comprising less than 2% of the population. In our multinomial logistic analyses, we combine these other races into a single “Other Race” group due to sample size limitations. Similarly, the state data system allows district personnel to report teacher gender as either male or female. We code an indicator variable for observations listed as male.

Age & Experience

Our data contain each teacher’s date of birth. We calculate the teacher’s age as of October 1st of each academic year and subsequently categorize each teacher-year observation into one of four bins: under 35 years old, 35-44 years old, 45-54 years old, and aged over 55. Teachers over the age of 55 are more likely eligible for full or partially reduced retirement under Arkansas Teacher Retirement System eligibility guidelines.

We define two variables representing early career and late career status using a years of experience variable provided in the administrative data. Early career teachers are defined as those with fewer than 5 years of experience and thus are not vested in the state teacher retirement system. Late career teachers are those with more than 24 years of experience and, consequentially, are eligible for full or partial retirement under the state teacher retirement system.

Advanced Degree

We construct a dummy variable representing if a teacher has a master’s degree or higher using information provided in the administrative data.

STEM/SPED

We construct two indicator variables for teaching STEM (science, technology, engineering, or mathematics) and SPED (special education) courses using job assignments data from the Arkansas Department of Education and information from the Arkansas Department of Education’s Course Code Management System. The indicator variable for teaching STEM takes a value of one if the individual is

listed as teacher of record on any mathematics, natural science (e.g., physics, chemistry, etc.), or computer science course that cannot be taught under a general elementary teacher license (e.g., is a middle school or higher course). The indicator variable for teaching SPED similarly takes a value of one if the individual is listed as teacher of record on any special education course. Additionally, as special education teachers may not be listed as teacher of record for inclusion or co-taught classes, we consider anyone who holds job codes indicating that they are a special education inclusion teacher or indirect special education teacher as a SPED teacher.

Spell Length

As is normal in discrete time hazard models, we include the natural log of spell length, or the length of time an individual has been a teacher at a given school, in our models. In our data, this is calculated from a date of hire variable provided in the administrative data.

School and District-Level Variables

For the following variables, we first attempt to match each school to records in the Arkansas Department of Education's Data Centerⁱ. If this variable is unavailable at the school level, we impute it at the district level. While imperfect, most of the missing values in our data come from smaller school districts where there is typically only one building per grade level and, so, characteristics of each building will not vary significantly from the entire school district.

Student Body Composition

We include two measures of student body composition in our models. We calculate both, the proportion of FRL students and proportion of non-white students, as the number of students in each category (i.e., FRL or non-white) divided by the total enrollment for that school.

Enrollment Change

We calculate the enrollment change from year t to year $t + 1$ as the change in 3rd quarter average daily membership (which is used by the State of Arkansas in funding formulas), divided by the 3rd quarter average daily membership from year t . For years in which the 3rd quarter average daily membership is not yet available, we use the enrollment averaged over the first and second quarters.

Discipline Rate

We use the discipline rate calculated as the number of recorded office/administrative referrals divided by building enrollment. These referrals are typically reserved for more serious discipline infractions and not routine detentions/teacher-created consequences. We use the 2018-19 school year discipline rate in each

school (or district) for all years of our analysis to avoid issues caused by the shorter 2019-20 school year and changes in the nature and volume of discipline referrals during the pandemic. The reduced volume of disciplinary referrals may indicate that the types of student behavior that they capture are substantially different during the pandemic as compared to pre-pandemic. We perform our analysis using a time-varying discipline rate and find similar results, although the magnitude of point estimates is larger.

Average Teacher Experience

We calculate this variable for each teacher at the school level as the average number of years of experience for all teachers in a building except for that individual teacher (i.e., $(Exp_{SchoolTotal} - Exp_i)/(N_{teachers} - 1)$).

Urbanicity

We use the NCES's locale classifications to construct urbanity indicator variables for each school. Urban schools are defined as those located within both an urbanized area (e.g., a population greater than 50,000 people) and the principal city of a core-based statistical area (CBSA). Suburban schools are those located within an urbanized area, but outside of a CBSA principal city. Town schools are located inside an urban cluster (e.g., a population between 2,500 and 50,000 people). Rural schools are those schools located outside of urban clusters and urbanized areas.

Grade Levels Served

We match schools in our panel to data from the Common Core of Data (CCD) from the National Center for Education Statistics (NCES) using the Urban Institute's Education Data Portal API. We then construct indicator variables for each teacher-year observation based on the grade levels served. Teachers in schools offering pre-kindergarten through 4th grade are classified as teaching in an elementary school. Those in schools offering 5-8th grade are classified as teaching in a middle school. Those in schools offering 9-12th grade are classified as teaching in a high school. For teachers in the 18 schools in the state that offer multiple grade bands, we classify teachers based on the lowest grade level served. For example, a school serving kindergarten through 6th grade would be classified as an elementary school.

Effective In-Person Instruction (E IPL)

We use publicly available data provided by Kurmann and Lalé (2021)ⁱⁱ which is a weekly measure of the proportion of students participating in in-person instruction at the district level. We construct a single year-long average (mean) to include in our models from these data, excluding the week of major U.S. holidays (i.e., Thanksgiving and Christmas).

Changes in Mode of Instruction

We use district-level longitudinal data from the American Enterprise Institute's Return 2 Learn Tracker to construct measures related to instructional mode during the 2020-21 academic year. These data contain weekly instructional status for 141 districts representing 81.6% of statewide student enrollment from August 10th, 2020, through June 7th, 2021. Districts were classified as fully in-person if all grade levels were offered in-person learning five days per week and remote if all grades above first grade participated only in remote learning. Districts were classified as hybrid if all students in any grade above first grade were unable to attend school in-person five days per week. Districts that offered in-person learning only for particular student subgroups (e.g., students receiving special education services) were classified as fully remote. We then construct an indicator variable representing if a district changed its mode of instruction during the school year to capture disruptions and changes to normal working conditions that may impact teacher retention. As schools in Arkansas were required to offer five days of in-person learning starting in the fall of the 2020-2021 school year, these changes in modality would most often represent changes from in-person learning to hybrid or fully remote modalities due to increased COVID cases and related teacher shortages.

ⁱ <https://myschoolinfo.arkansas.gov/>

ⁱⁱ <https://osf.io/cghs2/>

Online Supplemental Appendix B: Unabridged Results

Table B1 – Changes in Factors Associated with Teachers' Labor Force Outcomes (Unabridged)

	Panel A: Stayer				Panel B: Mover				
	Pre-COVID	2020-21	2021-22	2022-23		Pre-COVID	2020-21	2021-22	2022-23
Teacher: Black	0.000 (0.006)	-0.022* (0.009)	-0.027** (0.009)	0.010 (0.009)	Teacher: Black	0.002 (0.004)	0.001 (0.007)	-0.006 (0.006)	-0.018** (0.006)
Teacher: Hispanic	0.027+ (0.014)	0.022 (0.019)	-0.007 (0.020)	0.015 (0.019)	Teacher: Hispanic	-0.018+ (0.010)	-0.029* (0.013)	0.000 (0.014)	-0.005 (0.013)
Teacher: Other Race	0.012 (0.014)	0.006 (0.020)	-0.013 (0.021)	-0.035 (0.022)	Teacher: Other Race	-0.022* (0.009)	-0.011 (0.014)	-0.003 (0.015)	-0.011 (0.015)
Teacher: Male	-0.043*** (0.004)	-0.043*** (0.006)	-0.035*** (0.006)	-0.034*** (0.006)	Teacher: Male	0.037*** (0.003)	0.041*** (0.005)	0.035*** (0.005)	0.042*** (0.005)
Teacher: Age 35-44	0.031*** (0.004)	0.023*** (0.007)	0.040*** (0.006)	0.051*** (0.007)	Teacher: Age 35-44	-0.014*** (0.003)	-0.010* (0.005)	-0.018*** (0.005)	-0.007 (0.005)
Teacher: Age 45-54	0.050*** (0.005)	0.021** (0.007)	0.038*** (0.007)	0.069*** (0.007)	Teacher: Age 45-54	-0.024*** (0.003)	-0.008 (0.005)	-0.015** (0.005)	-0.016** (0.005)
Teacher: Age 55+	-0.029*** (0.007)	-0.057*** (0.010)	-0.008 (0.010)	0.007 (0.009)	Teacher: Age 55+	-0.044*** (0.004)	-0.039*** (0.006)	-0.048*** (0.006)	-0.044*** (0.006)
Teacher: Early Career	-0.008+ (0.005)	-0.028*** (0.007)	-0.001 (0.007)	-0.020** (0.007)	Teacher: Early Career	0.004 (0.003)	0.015** (0.005)	0.007 (0.005)	0.015** (0.005)
Teacher: Late Career	-0.031*** (0.006)	-0.043*** (0.009)	-0.048*** (0.010)	-0.040*** (0.010)	Teacher: Late Career	-0.006 (0.005)	-0.013+ (0.007)	-0.011 (0.007)	-0.027*** (0.007)
Teacher: Adv. Degree	-0.014*** (0.003)	-0.012* (0.005)	-0.015** (0.005)	-0.022*** (0.005)	Teacher: Adv. Degree	0.000 (0.003)	-0.002 (0.004)	0.006+ (0.004)	0.004 (0.004)
Teacher: Spell Length	0.035*** (0.002)	0.030*** (0.003)	0.038*** (0.003)	0.039*** (0.003)	Teacher: Spell Length	-0.020*** (0.002)	-0.018*** (0.002)	-0.023*** (0.002)	-0.024*** (0.002)
Teacher: STEM	-0.001 (0.004)	-0.015* (0.006)	-0.009 (0.006)	-0.008 (0.006)	Teacher: STEM	0.003 (0.003)	0.013** (0.005)	0.008+ (0.005)	0.008 (0.005)
Teacher: SPED	-0.049*** (0.006)	-0.044*** (0.008)	-0.053*** (0.008)	-0.029*** (0.009)	Teacher: SPED	0.035*** (0.005)	0.043*** (0.007)	0.059*** (0.007)	0.030*** (0.007)
School: % Non-white	-0.079*** (0.010)	-0.017 (0.014)	-0.103*** (0.014)	-0.099*** (0.015)	School: % Non-white	0.009 (0.007)	-0.011 (0.011)	0.063*** (0.010)	0.048*** (0.011)
School: % FRL	-0.013 (0.013)	-0.030+ (0.018)	-0.001 (0.015)	0.011 (0.018)	School: % FRL	0.045*** (0.010)	0.031* (0.014)	0.030** (0.012)	0.022+ (0.014)
School: Enroll Increase	0.336*** (0.019)	0.302*** (0.029)	0.155*** (0.030)	0.240*** (0.030)	School: Enroll Increase	-0.315*** (0.013)	-0.294*** (0.024)	-0.173*** (0.023)	-0.184*** (0.022)
School: Discipline Rate	-0.008** (0.002)	-0.019*** (0.003)	-0.017*** (0.004)	-0.012** (0.004)	School: Discipline Rate	0.006*** (0.002)	0.012*** (0.002)	0.010*** (0.003)	0.007** (0.003)
School: Avg. Tch. Exp.	0.003*** (0.000)	0.004*** (0.001)	0.004*** (0.001)	0.002** (0.001)	School: Avg. Tch. Exp.	-0.001** (0.000)	-0.001 (0.001)	-0.002** (0.001)	-0.001 (0.001)
Urbanicity: City	0.038*** (0.038)	-0.015+ (0.015)	0.036*** (0.036)	0.051*** (0.051)	Urbanicity: City	-0.016*** (0.000)	0.022*** (0.001)	-0.033*** (0.001)	-0.032*** (0.001)

Panel A: Stayer				Panel B: Mover						
	Pre-COVID	2020-21	2021-22	2022-23		Pre-COVID	2020-21	2021-22	2022-23	
Urbanicity: Suburb		(0.005)	(0.008)	(0.007)	(0.008)		(0.004)	(0.007)	(0.005)	(0.006)
Urbanicity: Suburb	-0.031***	-0.015	0.015+	0.027**		Urbanicity: Suburb	0.034***	0.021**	-0.011+	-0.030***
Urbanicity: Town		(0.006)	(0.009)	(0.008)	(0.009)	Urbanicity: Town	(0.005)	(0.008)	(0.006)	(0.006)
Urbanicity: Town	0.013**	-0.020**	0.016*	-0.016*		Urbanicity: Town	-0.007*	0.019***	-0.023***	-0.002
Level: District		(0.004)	(0.007)	(0.007)	(0.007)	Level: District	0.016**	0.050***	0.011+	0.023***
Level: District	-0.028***	-0.059***	-0.022**	-0.036***		Level: District	(0.005)	(0.008)	(0.006)	(0.006)
Level: Middle		(0.006)	(0.009)	(0.008)	(0.008)	Level: Middle	0.020***	0.000	0.003	0.001
Level: Middle	-0.017***	0.004	0.004	0.003		Level: Middle	(0.005)	(0.005)	(0.005)	(0.005)
Level: Secondary		(0.005)	(0.007)	(0.007)	(0.007)	Level: Secondary	0.009*	0.016**	-0.004	-0.014*
Level: Secondary	-0.004	-0.018*	0.015*	0.014+		Level: Secondary	(0.004)	(0.006)	(0.006)	(0.006)
Year Indicators		(0.005)	(0.008)	(0.007)	(0.008)	Year Indicators		0.009***	0.014***	0.020***
Year Indicators	-0.007*		-0.024***	-0.049***		Year Indicators	(0.003)	(0.003)	(0.002)	(0.002)
Pseudo R ²		0.112				Pseudo R ²		0.112		
Observations		149,687				Observations		149,687		

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; Heteroskedastic robust standard errors reported.

Bolded estimates are statistically significantly different from pre-COVID average marginal effects at the 95% or greater confidence level.

Table B1 Continued – Changes in Factors Associated with Teachers’ Labor Force Outcomes (Unabridged)

	Panel C: Switcher				Panel D: Exiter			
	Pre-COVID	2020-21	2021-22	2022-23	Pre-COVID	2020-21	2021-22	2022-23
Teacher: Black	0.013*** (0.003)	0.013*** (0.004)	0.015** (0.005)	0.016*** (0.005)	Teacher: Black	-0.014*** (0.004)	0.008 (0.006)	0.017** (0.006)
Teacher: Hispanic	-0.002 (0.005)	0.013 (0.009)	0.009 (0.010)	0.004 (0.009)	Teacher: Hispanic	-0.007 (0.010)	-0.006 (0.013)	-0.002 (0.013)
Teacher: Other Race	-0.005 (0.004)	0.000 (0.007)	-0.005 (0.008)	-0.010 (0.007)	Teacher: Other Race	0.016 (0.010)	0.005 (0.014)	0.021 (0.015)
Teacher: Male	0.003+ (0.002)	0.000 (0.002)	-0.002 (0.003)	0.000 (0.003)	Teacher: Male	0.003 (0.003)	0.002 (0.004)	0.002 (0.004)
Teacher: Age 35-44	0.002 (0.002)	0.001 (0.002)	-0.001 (0.003)	0.000 (0.003)	Teacher: Age 35-44	-0.018*** (0.003)	-0.013** (0.005)	-0.022*** (0.004)
Teacher: Age 45-54	-0.005*** (0.002)	-0.002 (0.002)	-0.007* (0.003)	-0.009** (0.003)	Teacher: Age 45-54	-0.020*** (0.003)	-0.011* (0.005)	-0.016*** (0.005)
Teacher: Age 55+	-0.011*** (0.002)	-0.007** (0.002)	-0.017*** (0.003)	-0.013*** (0.003)	Teacher: Age 55+	0.083*** (0.006)	0.103*** (0.009)	0.073*** (0.008)
Teacher: Early Career	-0.006*** (0.001)	-0.007*** (0.002)	-0.016*** (0.002)	-0.014*** (0.003)	Teacher: Early Career	0.010** (0.003)	0.020*** (0.005)	0.010* (0.005)
Teacher: Late Career	-0.001 (0.002)	0.003 (0.003)	0.002 (0.004)	-0.007* (0.003)	Teacher: Late Career	0.038*** (0.004)	0.053*** (0.006)	0.058*** (0.007)
Teacher: Adv. Degree	0.014*** (0.001)	0.016*** (0.002)	0.017*** (0.002)	0.023*** (0.002)	Teacher: Adv. Degree	0.000 (0.002)	-0.001 (0.003)	-0.008** (0.003)
Teacher: Spell Length	0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)	0.002 (0.001)	Teacher: Spell Length	-0.015*** (0.001)	-0.012*** (0.002)	-0.014*** (0.002)
Teacher: STEM	-0.001 (0.001)	-0.003 (0.002)	-0.002 (0.002)	-0.009*** (0.002)	Teacher: STEM	-0.001 (0.003)	0.005 (0.004)	0.003 (0.004)
Teacher: SPED	-0.002 (0.002)	0.001 (0.003)	-0.010*** (0.003)	-0.004 (0.003)	Teacher: SPED	0.016*** (0.004)	0.000 (0.005)	0.004 (0.005)
School: % Non-white	-0.001 (0.004)	0.004 (0.005)	0.010+ (0.006)	0.011+ (0.006)	School: % Non-white	0.071*** (0.007)	0.024* (0.009)	0.029** (0.009)
School: % FRL	0.005 (0.004)	0.001 (0.006)	-0.001 (0.006)	0.002 (0.007)	School: % FRL	-0.037*** (0.009)	-0.002 (0.012)	-0.028** (0.010)
School: Enroll Increase	0.000 (0.007)	-0.007 (0.010)	0.009 (0.012)	-0.021+ (0.012)	School: Enroll Increase	-0.021 (0.014)	0.000 (0.018)	0.009 (0.019)
School: Discipline Rate	0.000 (0.001)	0.002* (0.001)	0.002 (0.001)	0.001 (0.002)	School: Discipline Rate	0.001 (0.002)	0.005* (0.002)	0.005* (0.002)
School: Avg. Tch. Exp.	-0.001*** (0.000)	-0.001* (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	School: Avg. Tch. Exp.	-0.001*** (0.000)	-0.003*** (0.000)	-0.001+ (0.000)
Urbanicity: City	0.000 (0.002)	-0.002 (0.002)	-0.002 (0.003)	-0.007* (0.003)	Urbanicity: City	-0.023*** (0.004)	-0.005 (0.005)	-0.002 (0.005)
Urbanicity: Suburb	0.001	-0.008***	-0.002	-0.004	Urbanicity: Suburb	-0.004	0.001	-0.002

Panel C: Switcher				Panel D: Exiter					
	Pre-COVID	2020-21	2021-22	2022-23		Pre-COVID	2020-21	2021-22	2022-23
Urbanicity: Town	(0.002)	(0.002)	(0.003)	(0.004)		(0.004)	(0.006)	(0.006)	(0.007)
Level: District	-0.004**	-0.003	0.000	0.008*	Urbanicity: Town	-0.002	0.004	0.007	0.011*
Level: Middle	(0.002)	(0.002)	(0.003)	(0.003)	Level: District	0.006**	(0.003)	(0.004)	(0.005)
Level: Secondary	0.006**	0.009**	-0.002	0.005	Level: Middle	0.007	0.000	0.013*	0.007
Year Indicators	(0.002)	(0.002)	(0.003)	(0.003)	Level: Secondary	-0.002	-0.004	-0.003	0.001
	(0.002)	(0.002)	(0.003)	(0.003)	Year Indicators	(0.003)	(0.004)	(0.004)	(0.005)
	(0.001)	(0.001)	(0.001)			(0.003)	(0.005)	(0.005)	(0.005)
Pseudo R ²		0.112			Pseudo R ²		0.112		
Observations		149,687			Observations		149,687		

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; Heteroskedastic robust standard errors reported.

Bolded estimates are statistically significantly different from pre-COVID average marginal effects at the 95% or greater confidence level.

Online Supplemental Appendix C: Results with Switchers and Exiters Combined

Table C1 – Changes in Factors Associated with Teachers’ Labor Force Outcomes

Panel A: Stayer					Panel B: Mover				
	Pre-COVID	2020-21	2021-22	2022-23		Pre-COVID	2020-21	2021-22	2022-23
Teacher: Black	0.002 (0.006)	-0.022* (0.009)	-0.026** (0.009)	0.009 (0.009)	Teacher: Black	0.002 (0.005)	0.001 (0.007)	-0.006 (0.006)	-0.020*** (0.006)
Teacher: Age 35-44	0.029*** (0.004)	0.020** (0.007)	0.038*** (0.006)	0.046*** (0.007)	Teacher: Age 35-44	-0.015*** (0.003)	-0.010* (0.005)	-0.019*** (0.005)	-0.006 (0.005)
Teacher: Age 45-54	0.050*** (0.005)	0.022** (0.007)	0.039*** (0.007)	0.069*** (0.007)	Teacher: Age 45-54	-0.024*** (0.003)	-0.009 (0.005)	-0.015** (0.005)	-0.016** (0.005)
Teacher: Age 55+	-0.027*** (0.007)	-0.056*** (0.010)	-0.007 (0.009)	0.006 (0.009)	Teacher: Age 55+	-0.043*** (0.004)	-0.038*** (0.006)	-0.047*** (0.006)	-0.042*** (0.006)
Teacher: Early Career	-0.006 (0.005)	-0.025*** (0.007)	0.001 (0.007)	-0.020** (0.007)	Teacher: Early Career	0.004 (0.003)	0.015** (0.005)	0.007 (0.005)	0.015** (0.005)
Teacher: Late Career	-0.032*** (0.006)	-0.043*** (0.009)	-0.049*** (0.010)	-0.044*** (0.010)	Teacher: Late Career	-0.006 (0.005)	-0.014* (0.007)	-0.012+ (0.007)	-0.022** (0.007)
Teacher: STEM	-0.001 (0.004)	-0.015* (0.006)	-0.010 (0.006)	-0.008 (0.006)	Teacher: STEM	0.003 (0.003)	0.012** (0.005)	0.008+ (0.005)	0.004 (0.005)
Teacher: SPED	-0.049*** (0.006)	-0.042*** (0.008)	-0.054*** (0.008)	-0.026** (0.008)	Teacher: SPED	0.035*** (0.005)	0.043*** (0.007)	0.059*** (0.007)	0.030*** (0.007)
School: % Non-white	-0.079*** (0.010)	-0.014 (0.014)	-0.105*** (0.014)	-0.097*** (0.015)	School: % Non-white	0.009 (0.007)	-0.009 (0.011)	0.064*** (0.010)	0.047*** (0.011)
School: % FRL	-0.012 (0.013)	-0.034+ (0.018)	0.001 (0.015)	0.016 (0.018)	School: % FRL	0.044*** (0.010)	0.030* (0.014)	0.029* (0.012)	0.014 (0.013)
School: Enroll Increase	0.333*** (0.019)	0.263*** (0.026)	0.151*** (0.030)	0.253*** (0.029)	School: Enroll Increase	-0.315*** (0.013)	-0.294*** (0.024)	-0.173*** (0.023)	-0.189*** (0.021)
School: Discipline Rate	-0.008** (0.002)	-0.019*** (0.003)	-0.017*** (0.004)	-0.011** (0.004)	School: Discipline Rate	0.006*** (0.002)	0.012*** (0.002)	0.010*** (0.003)	0.007** (0.003)
Urbanicity: City	0.039*** (0.005)	-0.017* (0.008)	0.037*** (0.007)	0.047*** (0.008)	Urbanicity: City	-0.016*** (0.004)	0.021** (0.007)	-0.032*** (0.005)	-0.031*** (0.006)
Urbanicity: Suburb	-0.030*** (0.006)	-0.014 (0.009)	0.017* (0.008)	0.025** (0.009)	Urbanicity: Suburb	0.034*** (0.005)	0.021** (0.007)	-0.011+ (0.006)	-0.031*** (0.006)
Urbanicity: Town	0.012** (0.004)	-0.020** (0.007)	0.018** (0.007)	-0.017* (0.007)	Urbanicity: Town	-0.007* (0.003)	0.019*** (0.006)	-0.024*** (0.005)	-0.002 (0.005)
Year Indicators	-0.007* (0.003)	-0.024*** (0.003)	-0.049*** (0.003)		Year Indicators	0.009*** (0.002)	0.015*** (0.002)	0.018*** (0.002)	
Pseudo R ²		0.102	Pseudo R ²		0.102	Observations		149,687	Observations
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; Heteroskedastic robust standard errors reported.									

Bolded estimates are statistically significantly different from pre-COVID average marginal effects at the 95% or greater confidence level.

Table C1 Continued – Changes in Factors Associated with Teachers’ Labor Force Outcomes

	Panel C: Switcher & Exiter			
	Pre-COVID	2020-21	2021-22	2022-23
Teacher: Black	-0.004 (0.004)	0.021** (0.007)	0.032*** (0.008)	0.011 (0.008)
Teacher: Age 35-44	-0.014*** (0.003)	-0.010* (0.005)	-0.019*** (0.005)	-0.040*** (0.005)
Teacher: Age 45-54	-0.026*** (0.004)	-0.014* (0.005)	-0.024*** (0.005)	-0.053*** (0.005)
Teacher: Age 55+	0.071*** (0.006)	0.093*** (0.009)	0.055*** (0.008)	0.036*** (0.008)
Teacher: Early Career	0.002 (0.004)	0.011* (0.005)	-0.008 (0.005)	0.005 (0.006)
Teacher: Late Career	0.038*** (0.005)	0.057*** (0.007)	0.062*** (0.008)	0.067*** (0.008)
Teacher: STEM	-0.002 (0.003)	0.002 (0.004)	0.001 (0.005)	0.004 (0.005)
Teacher: SPED	0.014** (0.004)	-0.001 (0.005)	-0.005 (0.006)	-0.004 (0.006)
School: % Non-white	0.070*** (0.008)	0.023* (0.010)	0.042*** (0.011)	0.050*** (0.012)
School: % FRL	-0.032*** (0.010)	0.003 (0.013)	-0.030** (0.012)	-0.030* (0.014)
School: Enroll Increase	-0.018 (0.015)	0.030* (0.015)	0.022 (0.022)	-0.064** (0.023)
School: Discipline Rate	0.001 (0.002)	0.007** (0.002)	0.007* (0.003)	0.004 (0.003)
Urbanicity: City	-0.023*** (0.004)	-0.004 (0.006)	-0.005 (0.006)	-0.016* (0.006)
Urbanicity: Suburb	-0.003 (0.004)	-0.007 (0.006)	-0.006 (0.006)	0.005 (0.007)
Urbanicity: Town	-0.006 (0.003)	0.001 (0.005)	0.006 (0.005)	0.019*** (0.006)
Year Indicators		-0.002 (0.002)	0.009*** (0.002)	0.031*** (0.002)
Pseudo R ²		0.102		
Observations		149,687		

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; Heteroskedastic robust standard errors reported. Bolded estimates represent a statistically significant difference from pre-COVID average marginal effects at the 95% or greater confidence level.

Table C2 – Potential Explanatory Factors and Placebo Tests

Panel A: EIPL				Panel B: Ever Changed Modes			
Stayer				Stayer			
Pre	2020-21	2021-22	2022-23	Pre	2020-21	2021-22	2022-23
0.061**	0.078*	-0.014	0.037	-0.003	-0.013*	-0.040***	-0.002
(0.022)	(0.033)	(0.033)	(0.033)	(0.004)	(0.006)	(0.006)	(0.006)
Mover				Mover			
Pre	2020-21	2021-22	2022-23	Pre	2020-21	2021-22	2022-23
-0.045**	-0.067**	0.042+	0.041+	0.004	0.018***	0.031***	0.008+
(0.016)	(0.026)	(0.024)	(0.024)	(0.003)	(0.005)	(0.005)	(0.005)
Switcher & Exiter				Switcher & Exiter			
Pre	2020-21	2021-22	2022-23	Pre	2020-21	2021-22	2022-23
-0.016	-0.011	-0.028	-0.078**	-0.001	-0.006	0.008+	-0.006
(0.017)	(0.024)	(0.025)	(0.026)	(0.003)	(0.004)	(0.005)	(0.005)
Pseudo R ²	0.162			Pseudo R ²	0.264		
Observations	141,284			Observations	124,007		

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; Heteroskedastic robust standard errors reported.

Bolded estimates are statistically significantly different from pre-COVID average marginal effects at the 95% or greater confidence level.

Table C3 – Changes in the Quality of the Arkansas Teacher Workforce

	<i>Stayer</i>		<i>Mover</i>		<i>Switcher & Exiter</i>	
	Pre	2021-22	Pre	2021-22	Pre	2021-22
VAS: Math	0.197*** (0.037)	0.134** (0.047)	-0.076** (0.027)	-0.117** (0.036)	-0.121*** (0.029)	-0.017 (0.036)
VAS: ELA	0.136*** (0.040)	0.250*** (0.065)	-0.093** (0.029)	-0.207*** (0.048)	-0.042 (0.031)	-0.043 (0.050)
VAS: Science	0.095 (0.060)	0.127 (0.090)	-0.018 (0.044)	-0.059 (0.067)	-0.077+ (0.046)	-0.068 (0.068)
Has VAS	0.010* (0.004)	0.004 (0.006)	0.001 (0.003)	0.002 (0.005)	-0.011*** (0.003)	-0.006 (0.004)
Pseudo R ²				0.102		
Observations				90,070		

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001;

Heteroskedastic robust standard errors reported. Bolded estimates represent a statistically significant difference from pre-COVID average marginal effects at the 95% or greater confidence level.