

## INTRODUCTION

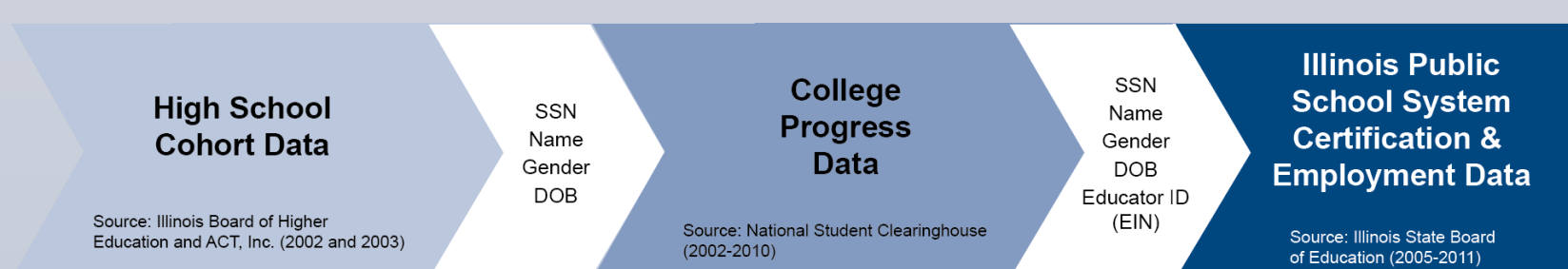
- Student characteristics and college access, enrollment, and completion patterns differ widely among regions in Illinois
  - Students from Chicago are more diverse and have lower ACT scores, whereas students in southern IL are more likely to enroll in 2-year colleges and less likely to earn bachelor's degrees
- Teacher labor markets are geographically constrained, considerably more so than those of similarly-aged college graduates in non-teaching occupations (Boyd et al., 2005; Reininger, 2012)
  - Urban teachers, non-White teachers, and teachers with weaker academic qualifications tend to be even less mobile
- New teachers also tend to choose schools with high proportions of students sharing their race and from similar socio-economic backgrounds (Cannata, 2008; Engel 2014)
- Younger workers tend to have more geographic mobility than older workers, so initial sorting is likely to persist to some extent

## RESEARCH QUESTIONS

- Is there regional variation in the new teacher pipeline in Illinois?
- What does the spatial geography of new teacher labor markets look like in Illinois?
- Does the spatial geography of new teacher labor markets differ by the teachers' demographic and academic characteristics?
- What are the relationships between the demographics of teachers, the schools they attended, and the schools where they initially teach?

## DATA

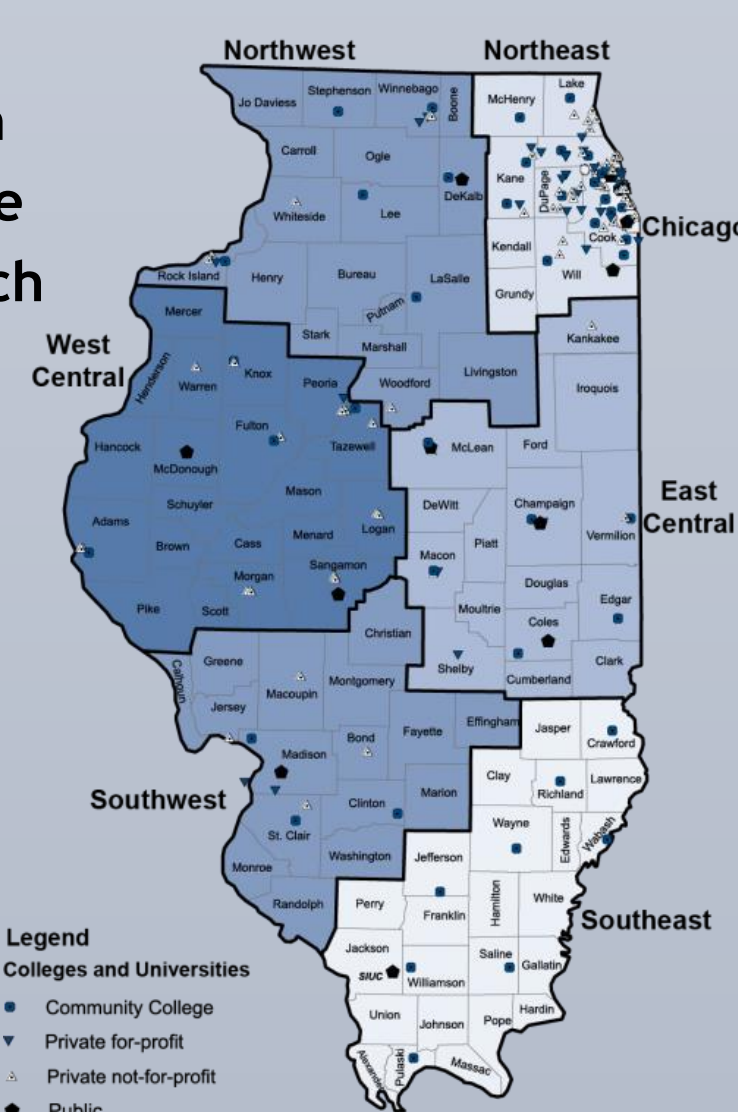
- Using data from ACT, National Student Clearinghouse, and state and federal education agencies, we track the 2002 and 2003 cohorts of Illinois high school graduates (N=225,196) for up to 10 years through college enrollment, bachelor's degree completion, teacher certification, and teaching employment in an Illinois public school



- For the teachers emerging from these cohorts (N=7,209), we analyze the distance and demographic similarity between each individual's high school, college, and initial teaching placement

- We also analyze the proportion who begin teaching in the same district (or a feeder) from which they graduated

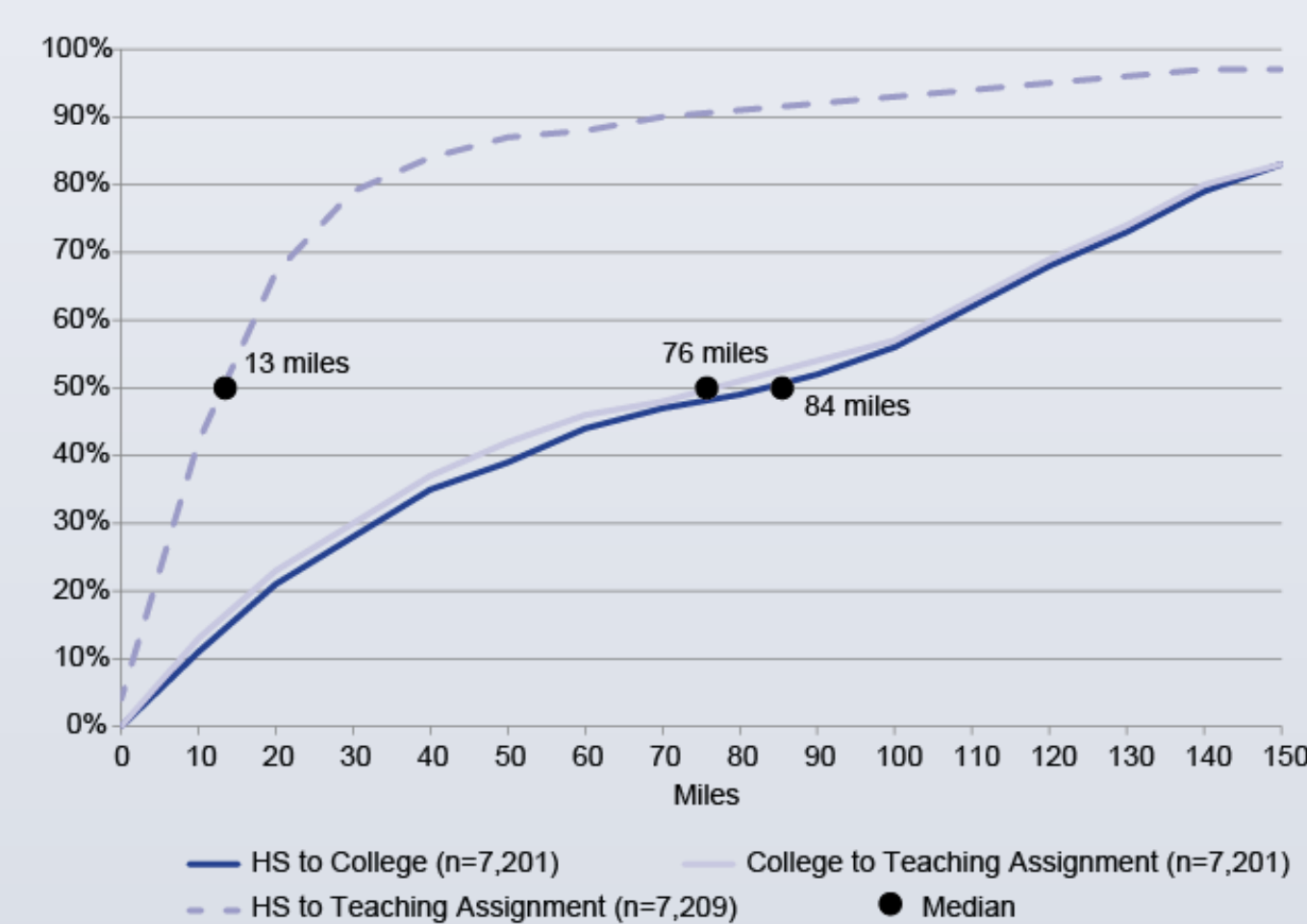
- We classify Illinois into 7 geographic regions that differ by student demographics and college-going patterns.



## RESULTS

### Changing composition of the new teacher pipeline by region of origin

- Students from each region progress through the college and teacher pipeline at different rates, such that some regions substantially overproduce teachers relative to their share of students whereas others tend to under-produce teachers
- Regions that under-produce teachers - like Chicago - must import teachers from regions that overproduce - like the Northeast



### Flow from home to college

- Most new teachers graduated from HS in the Northeast region
- Most earned their degree in the East Central region
- The second most popular college "region" for Illinois teachers was out-of-state

### Flow from college to initial teaching employment

- Substantial movement from colleges in the East Central to teaching in schools outside of this region
- Substantial movement to teaching at schools in the Northeast from colleges outside of these regions

### Flow from home to initial teaching employment

- The vast majority of the new teachers in each region graduated from high schools in that region... EXCEPT for Chicago - only a third of new CPS teachers graduated from CPS high schools
- Very limited movement into or out of the Southeast and Southwest regions

	NE → NE	NE → CPS	CPS → CPS
N	3,547	463	261
Top 1/3 ACT	64%	73%	35%
White	86%	71%	16%

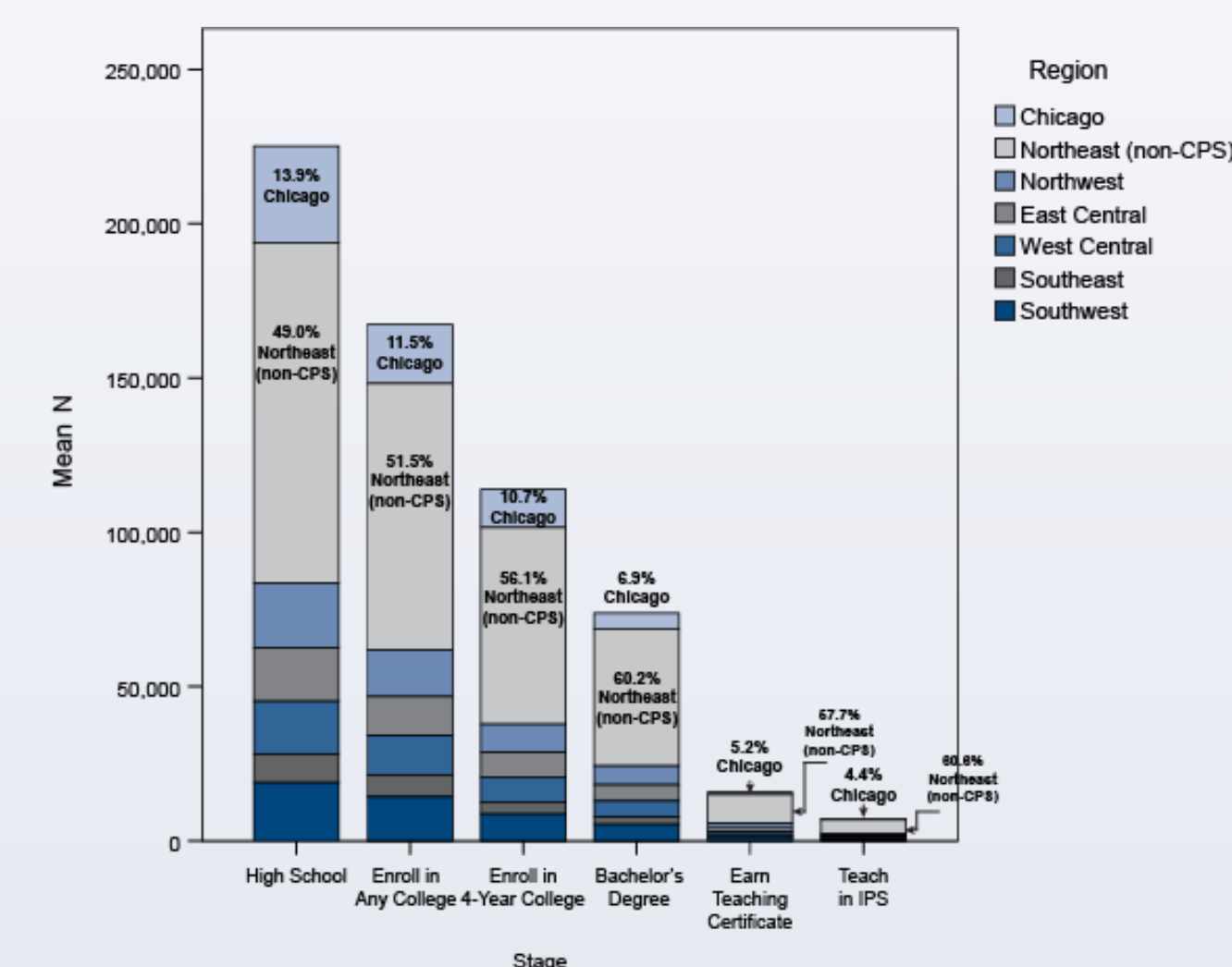
- New CPS teachers from the Northeast had stronger academic qualifications than their counterparts who stayed in the NE (and much stronger than native CPS) and were more diverse than their peers who stayed in the NE (but much less diverse than native CPS teachers)

### Demographic differences between former high school and initial teaching employment

- Across all Illinois regions, teachers tend to begin their careers at schools that are more disadvantaged (especially with regard to English proficiency and poverty) than the schools from which they graduated, even for teachers returning to the same school from which they graduated

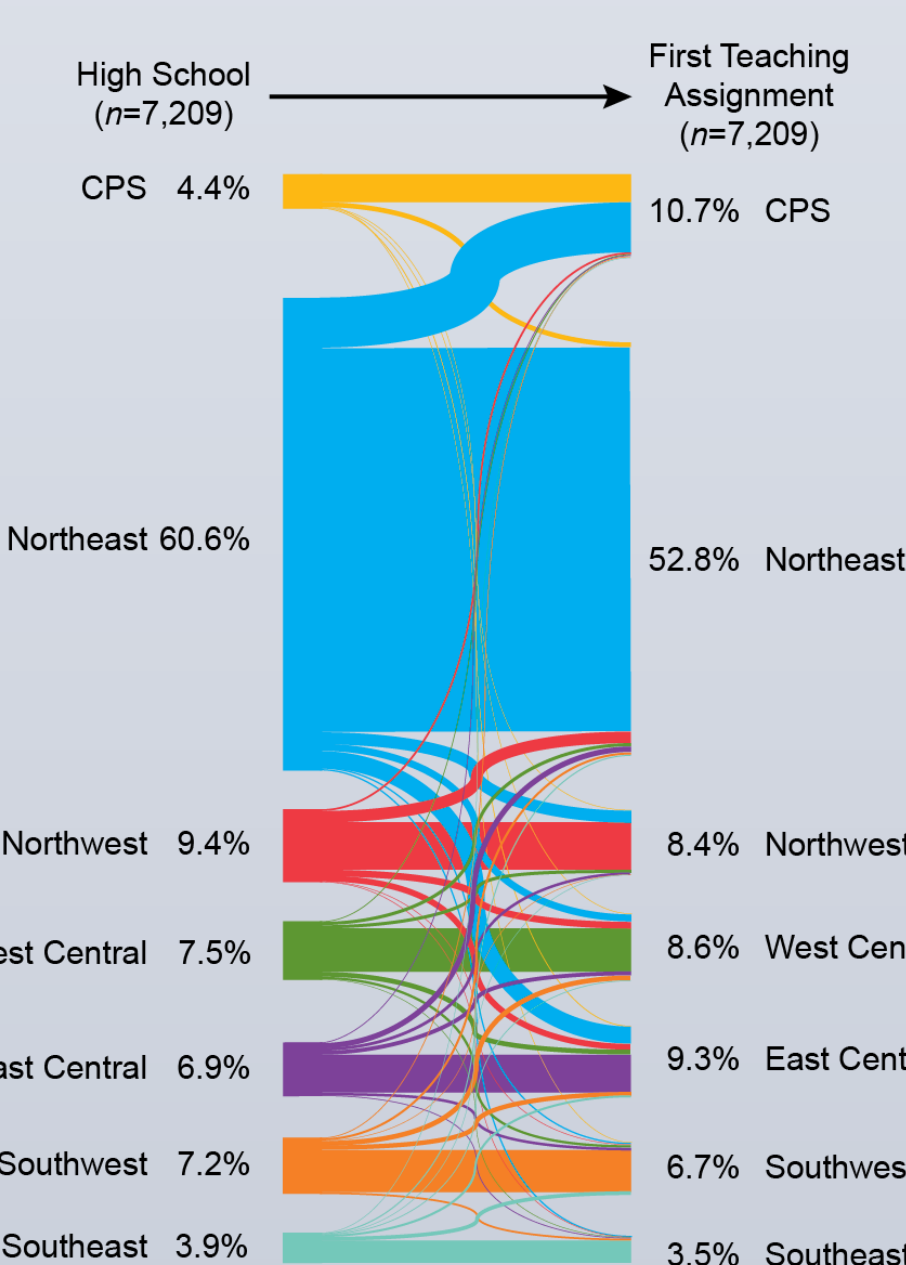
	Overall	Teaching in Same School	Teaching in Same District or Feeder	Teaching in Same Region						
				CPS	Northeast	Northwest	West Central	East Central	Southwest	Southeast
N	7,003	286	1,609	260	3,473	414	388	330	365	190
% White	-72.5	-28.0	-36.3	-104.7	-91.5	-62.2	-54.5	-69.9	-70.0	-40.1
% African American	41.6	10.6	15.1	30.8	38.6	18.1	31.0	49.0	53.5	15.7
% Latino	49.4	18.4	24.3	18.3	69.3	48.3	39.0	46.2	28.7	34.3
% Asian	-11.5	5.8	-6.0	-61.5	-6.2	11.7	14.8	27.5	0.0	0.0
% ELL	60.2	26.1	60.1	82.9	71.3	22.9	55.9	62.5	53.7	61.1
% Low Income	110.5	74.4	79.1	125.1	105.5	105.1	135.9	131.3	134.2	149.0

Cells are shaded according to their differences from zero. Proportional Retraction (dark grey) Proportional Growth (light blue)



### Labor market size by teacher characteristics

- Teachers tend to travel considerably further from home to attend college (median = 76 miles) than they do for their first teaching position (13 miles)
- Teachers from Chicago were the least mobile (5.4 miles), and more than 80% began teaching in CPS
- New teachers with ACT scores from the top 1/3 were slightly more mobile (13.6 miles) than their counterparts with ACT scores from the bottom 1/3 (10.2 miles)
- Latino (6.4 miles) and African-American (8.1 miles) teachers were less mobile than White (13.3 miles) and Asian-American (13.6 miles) teachers



## SUMMARY

- Similar to existing studies, we find that new Illinois teachers generally begin teaching in schools that are familiar geographically. However, we show that the schools tend to be less familiar with regard to student demographics than the high schools from which they graduated.
- College locale is not a good proxy for hometown because there is substantial mobility between home & college and between college & initial teaching placement.
- The vast majority of the new teachers in each region graduated from high schools in that region, except for Chicago, where only a third of new teachers were native to CPS.
- Chicago tends to under-produce new teachers and the Northeast region tends to over-produce new teachers (relative to the size of their student population), and new teachers who are "imported" to Chicago from the Northeast region have substantially higher academic qualifications than native teachers and are more diverse than peers who remain in the Northeast.
- Some regions (such as the Northeast and Chicago) are more open to inter-regional movement, whereas others (the Southern regions) tend to operate more as closed systems, with limited movement in or out.

## REFERENCES

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Cannata, M. (2010). Understanding the teacher job search process: Espoused preferences and preferences in use. *Teachers College Record*, 112(12), 2889-2934.

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