



Retention Rates & Support Programs

How do the American and Chinese educational systems support students throughout their entire educational career?

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Metrics of School Success



Enrollment Rates

What do they measure?

The percentage of the school-age population that **begins** the instructional year

Why use this metric?

Measures the effectiveness of compulsory education policies

Useful for showing differing enrollment levels **across** regions/institutions

Retention Rates

The percentage of students who **repeat** or **return** to the same grade level for the following instructional year

Measures progression of students from one grade to the next (or lack thereof)

Useful for showing how well students succeed **within** a particular institution

Our Research Question

How do the American and Chinese educational systems support students throughout their entire educational career?

Qualitative analysis: Review of state-enforced support systems in place for students

Quantitative analysis: Review of aggregate country-wide **retention rates** for each stage of education

Retention is the **single largest predictor** of **dropping out**.

"**Retention** can be used as a **fundamental method** to **measure an institution's success** in **meeting student needs**."



U.S.

Elementary School*

Ages 6-10

Middle School*

Ages 11-13

High School*

Ages 14-18

Collegiate Level

Ages 18-22



China

Primary Level*

Ages 6-11

Lower Secondary Level*

Ages 12-15

Upper Secondary Level

Ages 16-18

Tertiary Level (2-/4-year degrees)

Ages 18-22

Outline:

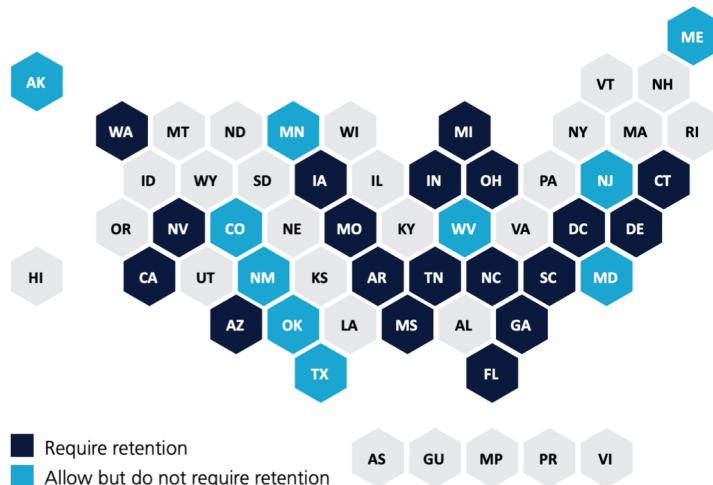


U.S.

Elementary School

- Based predominantly on third-grade reading proficiency exam scores.
- Students not reading proficiently by the end of third grade are four times more likely to not finish high school.
- Focus shifts from learning to read to reading to learn

States Requiring or Allowing Third-Grade Reading Retention



Note: Implementation will begin on July 1, 2019 in Nevada and during the 2019-2020 academic year in Michigan.

Source: NCSL 2018

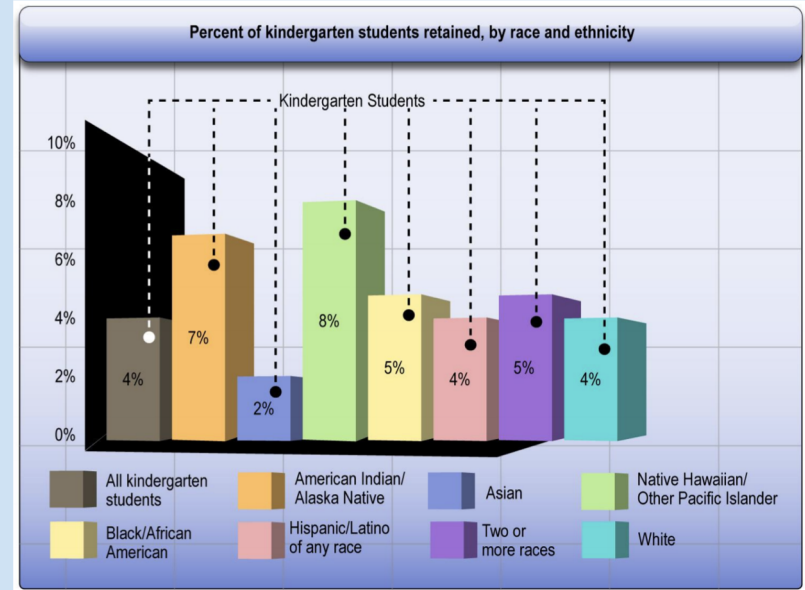
Region	
Northeast	5.9
Midwest	5.5
South	6.8
West	6.0
Income/2	
Low	7.2
Middle	6.2
High	5.0

U.S.

SUPPORT PROGRAMS

NO directly federal-funded support programs.

1. Striving Readers Comprehensive Literacy Program (USDE grants to States)
2. Improving Literacy through School Libraries (USDE grants to States)



China

Primary Level

Rural elementary schools and their attendees face the following problems:

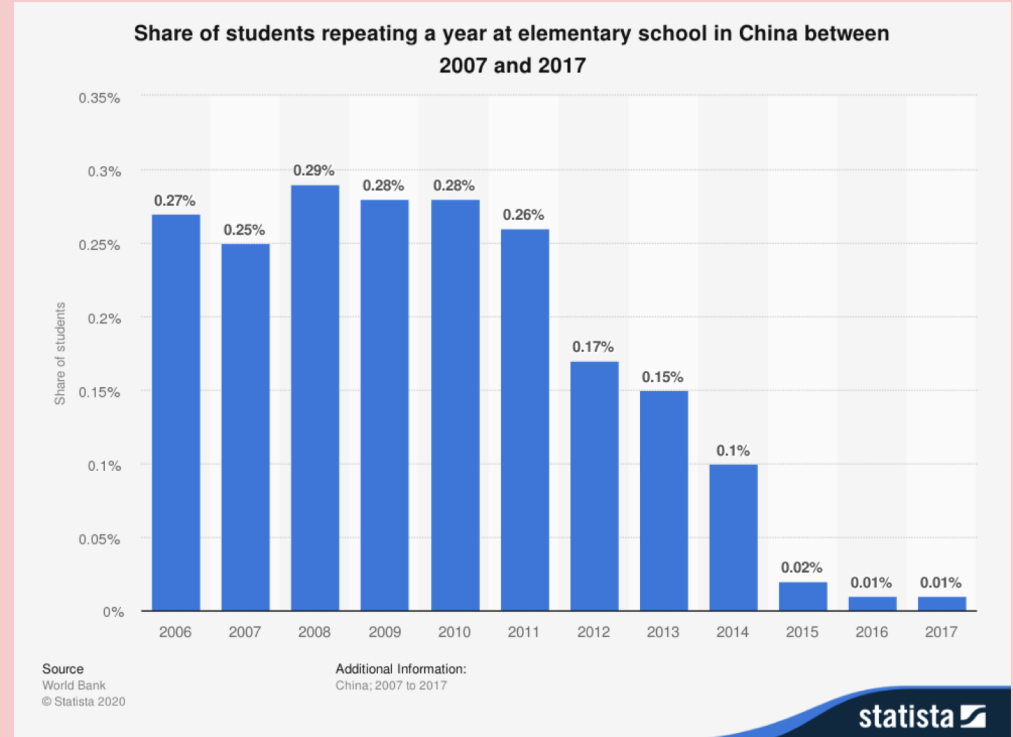
- The concentration of students with disadvantaged backgrounds and special needs
- Teacher burnout, imbalanced structure and high turnover
- Incomplete curriculum and ineffective pedagogy
- The lack of administrative and external support
- Teaching oriented toward urban life and uprooted from rural culture



China

SUPPORT SYSTEMS & REFORMS

- 2006: Funding for 3-year rural teacher contracts
- 2011: Facility upgrades for disadvantaged schools
- 2012: Free lunch program for rural students
- 2015: Equalized rural/urban per-pupil funding



U.S.

Middle School

“From grades 3-10, black students represented the largest single racial or ethnic group held back.

In 4th grade, they represented more than half of all students retained, and the rates were still high in some other grades.

In 5th grade, 44 percent were black,

and in 6th grade, 48 percent.

In 8th grade, black students were 42 percent of all those retained.”



U.S.

ROOT CAUSES:

- Black students are more likely to be punished for the same action than their white peers, and to a more severe degree (higher rates of suspension)
- Under-resourced schools (based on federal funding and local property tax values)

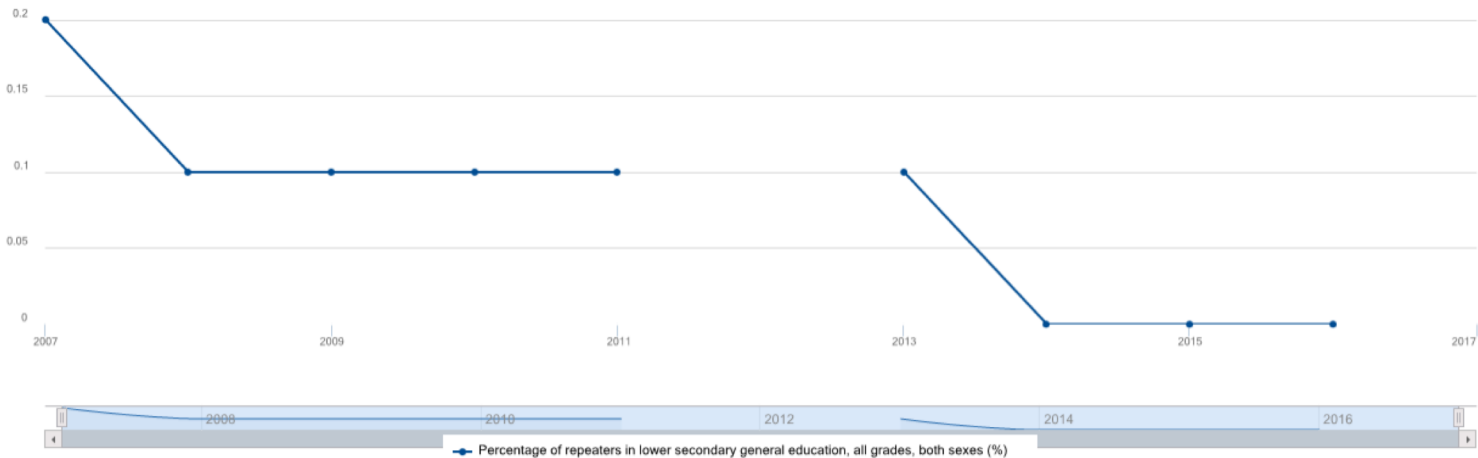
SUPPORT SYSTEMS:

- Could not find any on the federal level that specifically support Black middle school students...



China

Lower Secondary Level



Country : China

Source: Education Statistics - All Indicators

Created on: 04/16/2020

China

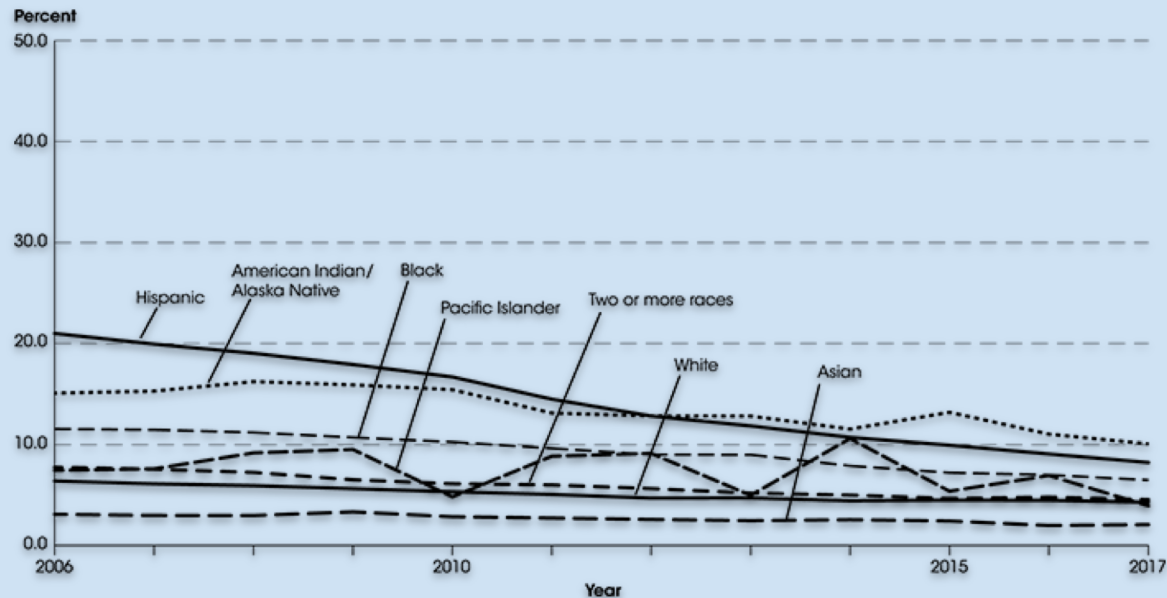
SUPPORT SYSTEMS

- Secondary Education Credit Unit System (**flexible student-led scheduling**)
- Ranked-choice assignment algorithm for primary school students transitioning to junior secondary schools in their district (**removal of bias from enrollment/transition process**)
- **Internet-based learning**, especially in urban centers
- Successful elite secondary schools create **branches in under-resourced areas**



U.S.

High School



Region	
Northeast	2.8
Midwest	2.1
South	3.3
West	1.1
Income/3	
Low	4.0
Middle	2.3
High	1.2

U.S.

SUPPORT SYSTEMS

High School Graduation Initiative /
School Dropout Prevention
Program(USDE grants to states)



China

Upper Secondary Level

	2011	2012	2013	2014	2015	2016	2017
Repeaters in upper secondary general education, all grades, both sexes (number)	88,056.0	..	42,811.0	37,514.0	23,464.0	15,685.0	26,977.0
Enrolment in upper secondary education, both sexes (number)	44,543,974.0	44,224,133.0	45,963,233.0	43,709,223.0	41,716,393.0	40,386,996.0	39,710,616.0

Source: Education Statistics - All Indicators. Click on a metadata icon for original source information to be used for citation.

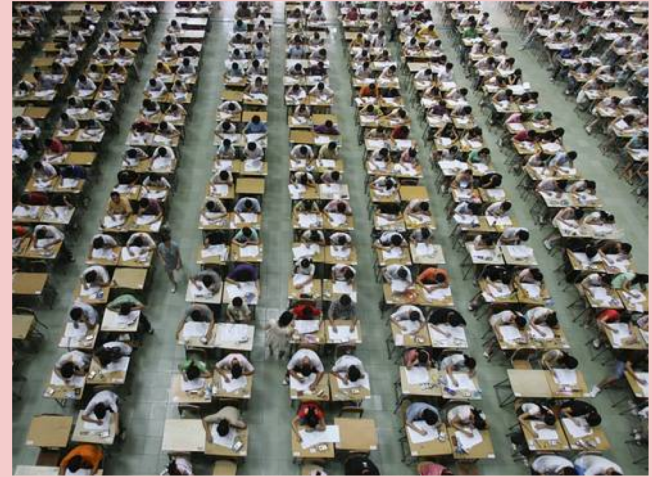
At this level of education, **enrollment** is a more pervasive issue than **retention**.

10% of graduating students did not attend school after compulsory education, many of them migrant students.

China

SUPPORT SYSTEMS & REFORMS

- New, more comprehensive evaluation system for upper secondary school entrance examinations
- Children of migrant families allowed to take the *gaokao* in their hosting province, not just at the site of *hukou* registration.
 - Incentivizes migrant students to complete upper secondary level studies and take the *gaokao*.



U.S.

Undergraduate Collegiate Level

Level and control of institution and gender	Percent graduating									
	Overall	American Indian or Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	White	Two or more races	Race/ ethnicity unknown	Nonresident alien
All 4-year institutions (cohort year 2011) ¹										
Total	55.5	32.5	71.9	34.5	50.1	43.4	60.7	53.0	41.1	69.1

Native and Black students have the lowest retention rates in college,
almost half the rates of their White peers.

U.S.

SUPPORT PROGRAMS:

1. Pell Grant (federally funded to financially support disadvantaged students)
1. Student Support Services Program (federally funded to academically and emotionally support first-gen. and low-income students)



China

Collegiate / Tertiary Level

- Universities in China are described as “**hard to enter, easy to exit.**”
- The graduation rate at the most elite Chinese universities is around **90%**, and **95%** at less selective universities.
- **Retention rates** are high, however, in **specific disciplines:**
- “Instead, **many Chinese schools just keep holding students back**, leading to a situation like the one today, in which a not-insignificant number of engineering students at top schools like Tsinghua or Zhejiang University are fifth- and sixth-years who are stuck, unable to graduate.”



China

SUPPORT SYSTEMS & REFORMS

Initiated primarily on the university level; include:

- Making it easier to switch majors
- Allowing underperforming students to transfer into lower-level universities and vocational programs



Overall Country Comparison



U.S.

Disadvantaged Population

Disparities are predominantly racial and detrimentally affect Black and Native students

Retention Rate Disparities

Consistent throughout lower education; dropout disparities are exacerbated at the college level

Support Systems & Reforms

Federally funded grants to states

Programs target general issues rather than disadvantaged groups

Minimal observed impact

China

Disparities between rural/urban populations; migrant students uniquely disadvantaged

Largest disparity between students who attend upper secondary level and those who do not

Federally funded, county- or province-implemented

Programs target specific issues faced by rural/migrant students

Retention rates have neared 0% in recent years

Main findings & trends


U.S. educational retention disparities are primarily racial rather than driven by geography.

China faces a massive disproportionate allocation of resources across urban and rural regions.

Both systems place some implementation power in the hands of the regions affected.

China's retention reform programs have succeeded by focusing on **solving specific issues** faced by **disadvantaged groups**.





Our recommendations for future research...

Adoption of the **Chinese style of program** (addresses specific, tangible problems faced by under-resourced or disadvantaged groups)

Randomized Controlled Trials (RCTs)
(with rural classes as the unit of analysis) to assess which kind of program -- focused on nutrition, teacher training, environmental upgrades, technology, flexible scheduling, relevant content -- is the most effective in ensuring student retention.