



*High-Quality STEM Education for
English Learners: Current Challenges
and Effective Practices*

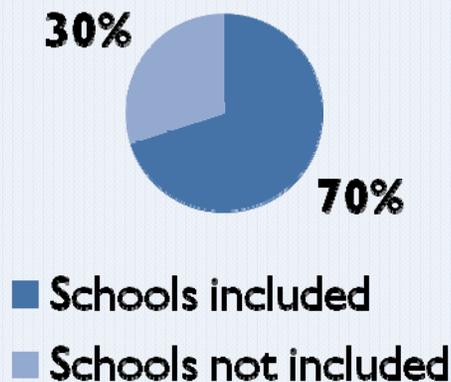
July 11, 2011

Assistant Deputy Secretary, Rosalinda B. Barrera
Office of English Language Acquisition

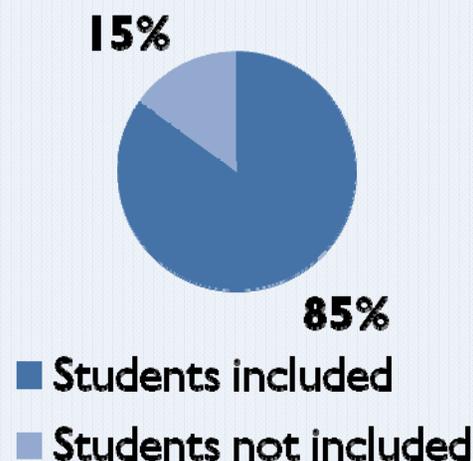
Civil Rights Data Collection (CRDC)

- ▶ In 2009-10 SY, approximately **7,000 school districts** and **72,000 schools** were selected to participate in the CRDC, using a sampling method that ensures that a representative group from each state is included.

▶ Schools in the CRDC



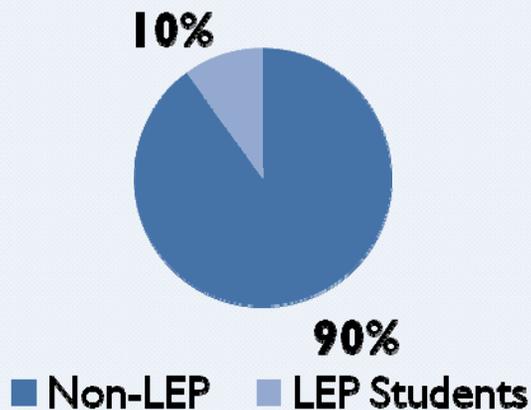
▶ Students represented in the CRDC



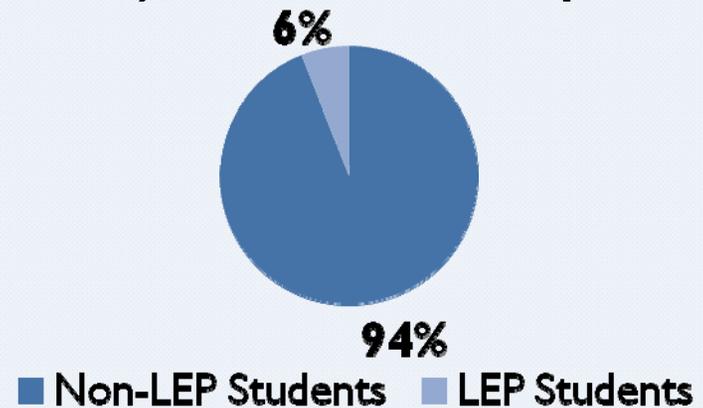
100% of all districts completed the survey.

LEP Student Membership

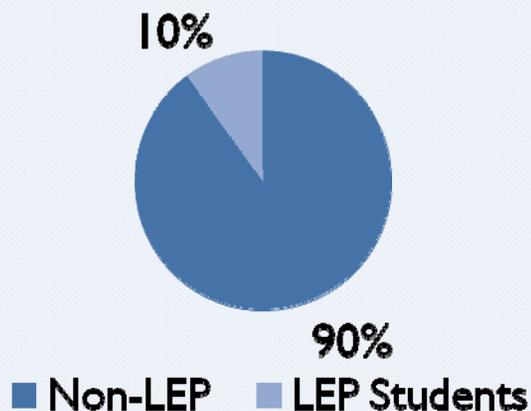
Overall, LEP students represent 10% of the CRDC Sample



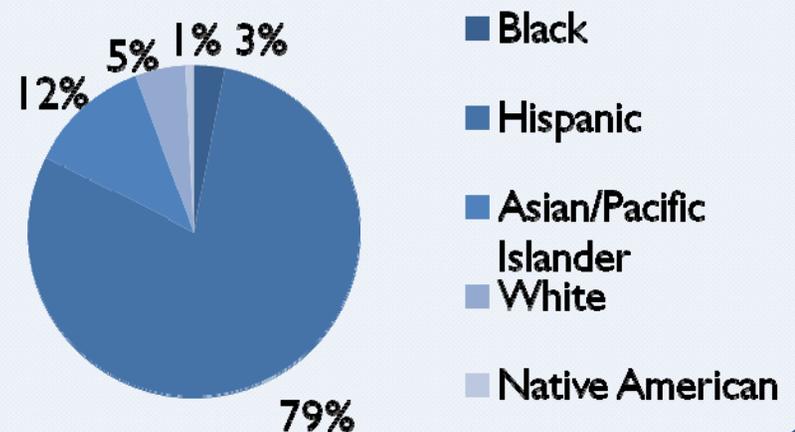
In the CRDC High Schools (grades 9-12), LEP students represent 6%



LEP Students represent 10% of students served by IDEA



Overall, 79% of LEP students are Hispanic



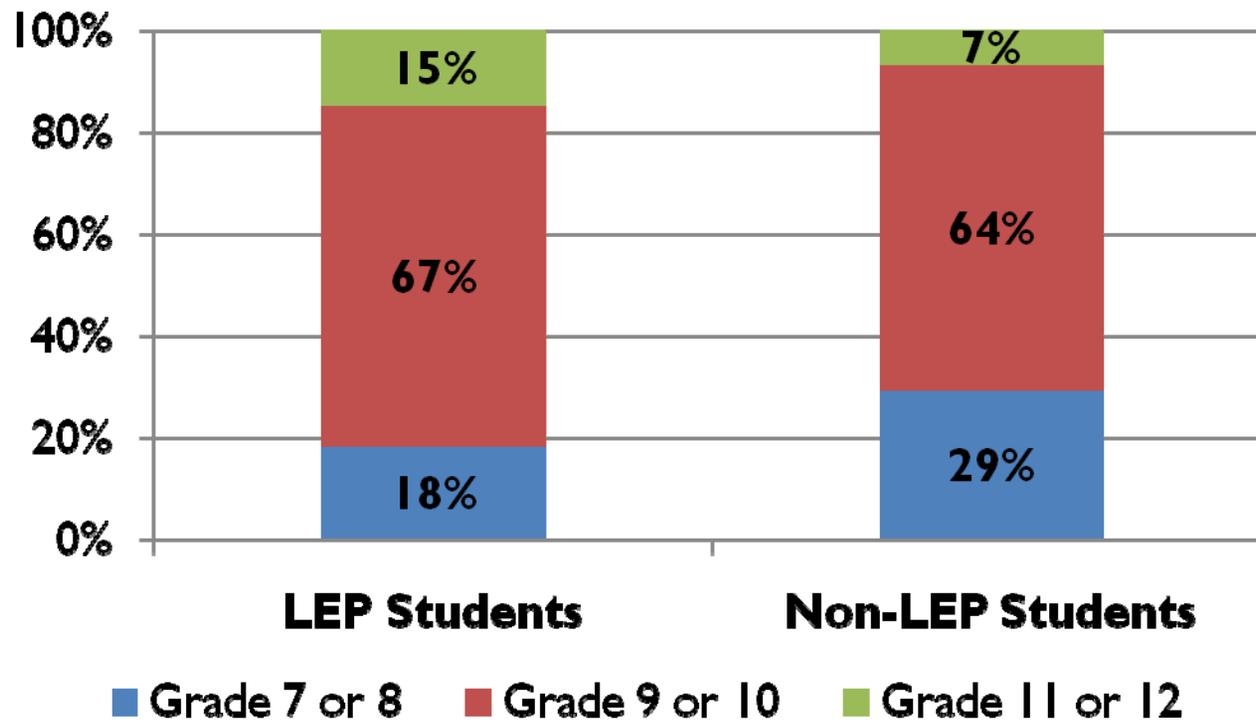
Availability of Advanced Math & Science Courses

- ▶ **What percentage of LEP students attend high schools offering advanced mathematics and science courses?**
 - ▶ Overall, a slightly smaller percentage of LEP students attend schools that offer advanced math and science courses than do non-LEP students

	Algebra II	Chemistry	Physics	Calculus
LEP Students	94%	93%	88%	74%
Non-LEP Students	94%	95%	89%	76%

Algebra I Enrollment

- ▶ Algebra I is a critical gateway course for other advanced science and mathematics courses.
- ▶ Of all the students enrolled in Algebra I in 2009-10, the graph below shows the proportion of LEP and non-LEP students taking Algebra I at various grade levels for the 2009-10 SY snapshot.



Advanced Math & Science Course Enrollment

- ▶ Schools in the CRDC sample also provided data on the demographics of students who were actually enrolled in advanced math and science courses.
 - ▶ LEP students represent 6% of overall high school student enrollment but only 1% of enrollments in calculus classes and 3% of enrollments in Physics

	Student Demographics:				
	All 9-12 Schools	Algebra II	Chemistry	Physics	Calculus
LEP	6%	4%	4%	3%	1%
Non-LEP Students	94%	96%	96%	97%	99%
Male Total	51%	49%	48%	54%	51%
Female Total	49%	51%	52%	46%	49%

Advanced Placement Course Enrollment

- ▶ Out of all LEP students enrolled in CRDC high schools
 - ▶ Only 5% are taking at least one AP course
 - ▶ Only 1% are taking AP Mathematics
 - ▶ Only 0.8% are taking AP Science
- ▶ Out of all White students enrolled in CRDC high schools
 - ▶ 19% are taking at least one AP course
 - ▶ 5% are taking AP Mathematics
 - ▶ 5% are taking AP Science

High-LEP Population Schools

K-12 Schools in the CRDC	% First and Second Year Teachers
10% or fewer LEP students (52,260 schools)	8%
25% or more LEP students (9,360 schools)	10%
33% or more LEP students (6,580schools)	10%
50% or more LEP students (2,760 schools)	13%