Differences Among Instructional Models in English Learners' Academic and English Proficiency Trajectories

Findings from the SFUSD/Stanford Research Partnership

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The SFUSD EL Pathways Study

- Goal: compare EL student outcomes across EL instructional pathways.
- The sample includes roughly 18,000 EL students who entered kindergarten in SFUSD from 2002-2010.
  - ~9,000 in English Plus (English Immersion)
  - ~4,000 in Bilingual Maintenance (Developmental Bilingual)
  - ~3,000 in Bilingual Early Exit (Transitional Bilingual)
  - ~2,000 in Dual Immersion
- Sub-analyses for Chinese and Latino ELs.

Research Context

- Relatively little high-quality evidence regarding relative effectiveness of different EL instructional models
  - English Immersion Programs
  - Bilingual Instruction Programs
  - Dual Immersion Programs
- Competing theoretical perspectives regarding relative effectiveness
  - English Immersion → faster English proficiency → faster access to core curricular content
  - Two-language programs → better second language development (transfer) and no loss of academic content while learning new language.

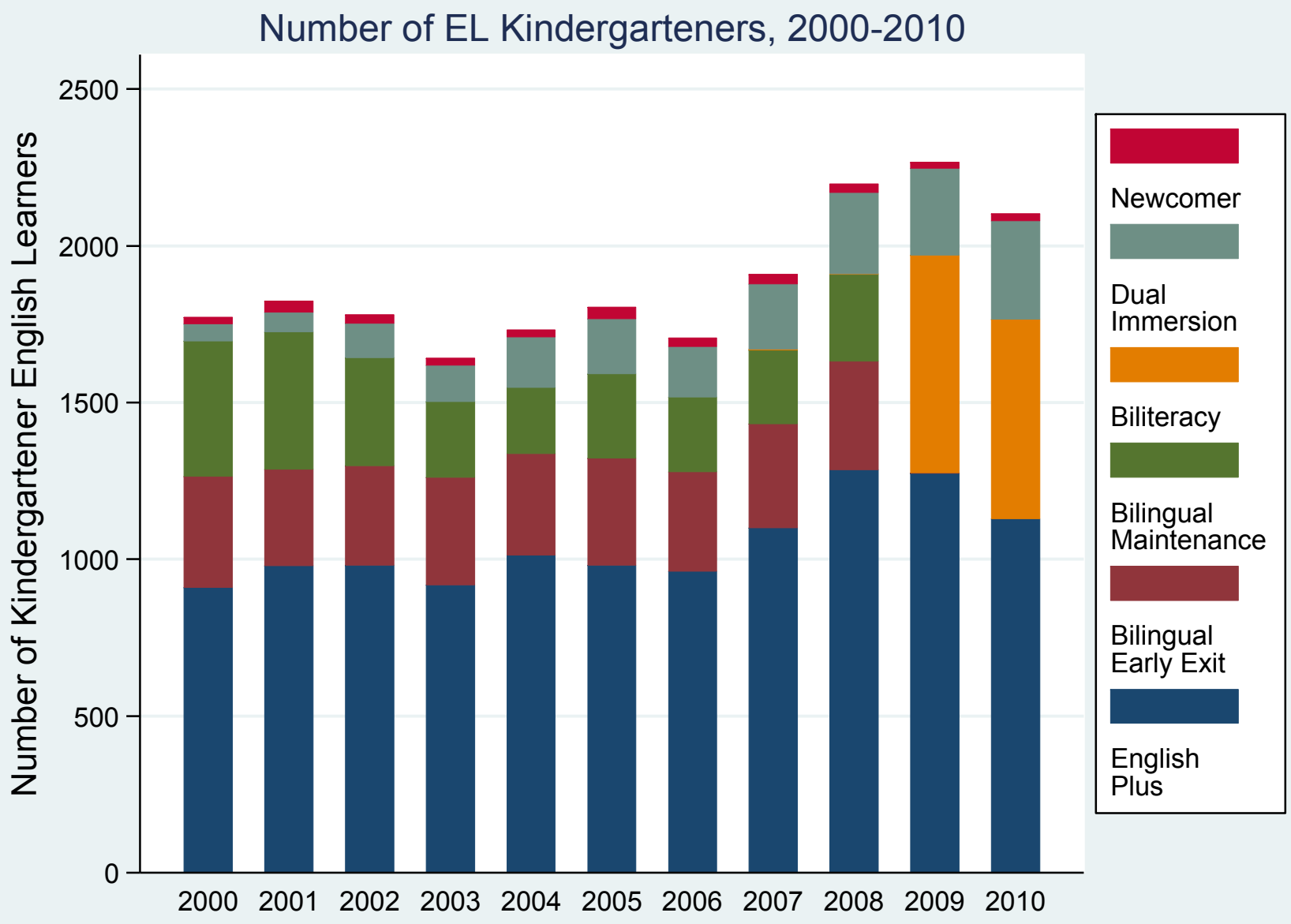
SFUSD Context

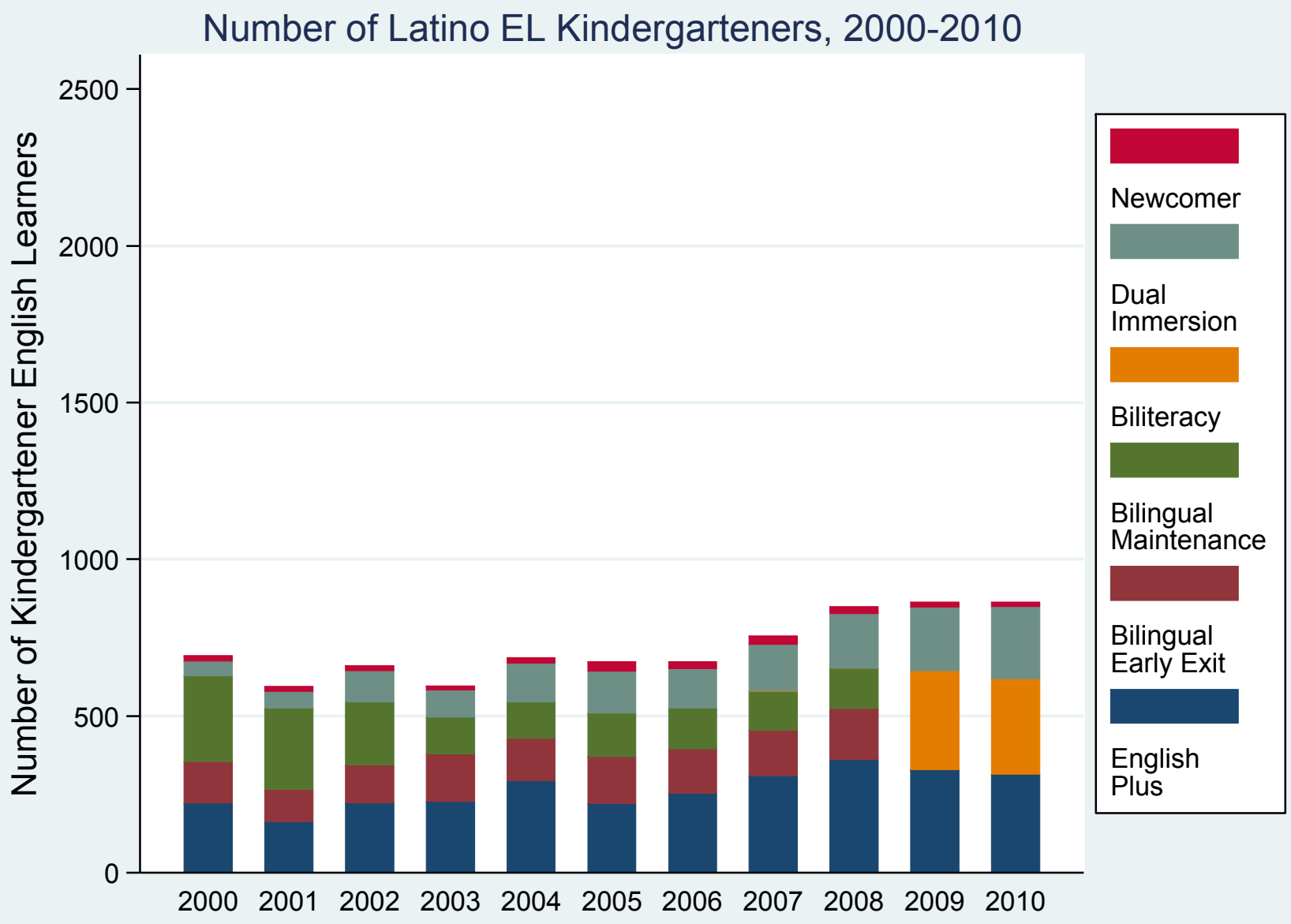
- **Lau Consent Decree** requiring English Learners have access to the core curriculum through language pathways (*Lau v. Nichols*, decided on January 21, 1974).
- **Proposition 227** requiring parents/guardians to sign annual waivers for students to participate in language pathways (*English in Public Schools Initiative*, passed on June 2, 1998) .

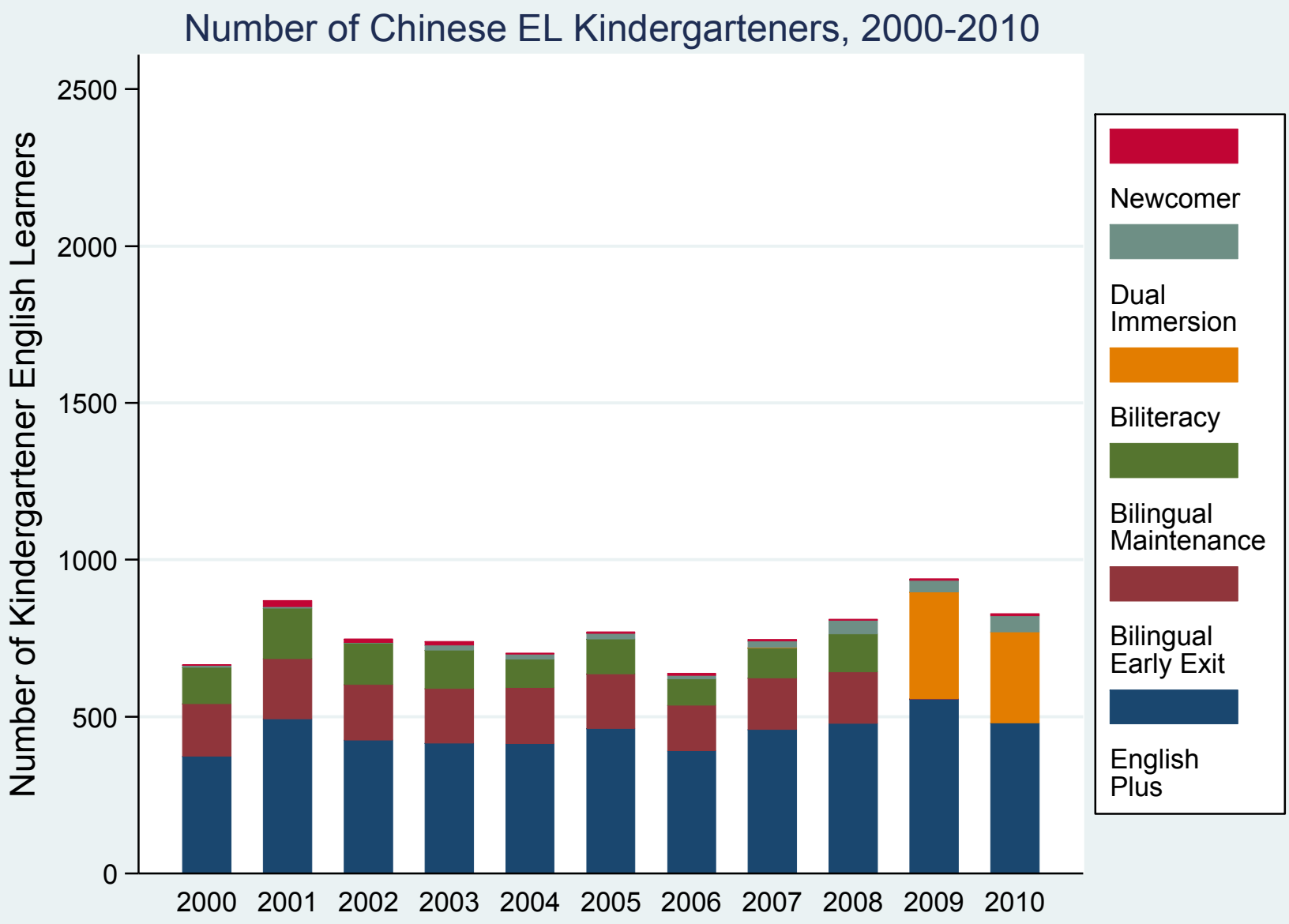
SFUSD Context

- SFUSD has a large and diverse EL student population:
  - 37% EL
    - ~40% Spanish-speaking
    - ~40% Chinese-speaking
    - ~20% Other language backgrounds
- The district offers currently four distinct & well-articulated instructional Pathways for EL students:
  - English Plus
  - Biliteracy → Bilingual Early Exit / Bilingual Maintenance
  - Dual Immersion
  - Newcomer

Pathway	English Plus	Biliteracy	Dual Immersion	Newcomer	Bilingual Maintenance	Bilingual Early Exit
Program Intention	To support language & academic development with English instruction for low-incidence ELL groups or for students whose parents want their children to be in English Immersion	To help native speakers students become fluent in both languages	To help native speakers, bilingual students, and English only students become fluent in both languages	To help transition recently arrived EL students adjust to their new language and culture	To develop competency in English while maintaining native language proficiency (i.e. bilingualism) and academic competency	To develop English proficiency and academic mastery with primary language support to access the core curriculum as needed
Population Served	EL students with Initial Fluent English Proficient (IFEP), Reclassified Fluent English Proficient (RFEP), and English Only (EO) students	EL students with Initial Fluent English Proficient (IFEP) or Reclassified Fluent English Proficient (RFEP)	1/3 – 1/2 not proficient in the target language 2/3 – 1/2 proficient in the target language	Recently arrived ELs with CELDT level 1 or 2	100% EL, IFEP or RFEP	100% EL, IFEP or RFEP
Instructional Time	-100% English - 30 min/day of English Language Development (ELD) - Coursework and Specially Designed Academic Instruction in English (SDAIE)	**K-1st:** 80-90% in native language **By 5th:** 50% in English & 50% in native language. Slight variations by language	**K-1st:** 80-90% in native language **By 5th:** 50% in English & 50% in native language. Slight variations by language	2 periods of intensive English Language Development; primary language support when available	**K:** 50-90% native language depending on students' proficiency. - Proportion English increases depending on students	**K:** 50-90% native language depending on students' proficiency. - Proportion English increases at quick pace.


Number of EL Kindergarteners, 2000-2010
Number of Kindergartener English Learners
2500
2000
1500
1000
500
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
Newcomer
Dual Immersion
Biliteracy
Bilingual Maintenance
Bilingual Early Exit
English Plus


Number of Latino EL Kindergarteners, 2000-2010
Number of Kindergartener English Learners
2500
2000
1500
1000
500
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
Newcomer
Dual Immersion
Biliteracy
Bilingual Maintenance
Bilingual Early Exit
English Plus


Number of Chinese EL Kindergarteners, 2000-2010
Number of Kindergartener English Learners
2500
2000
1500
1000
500
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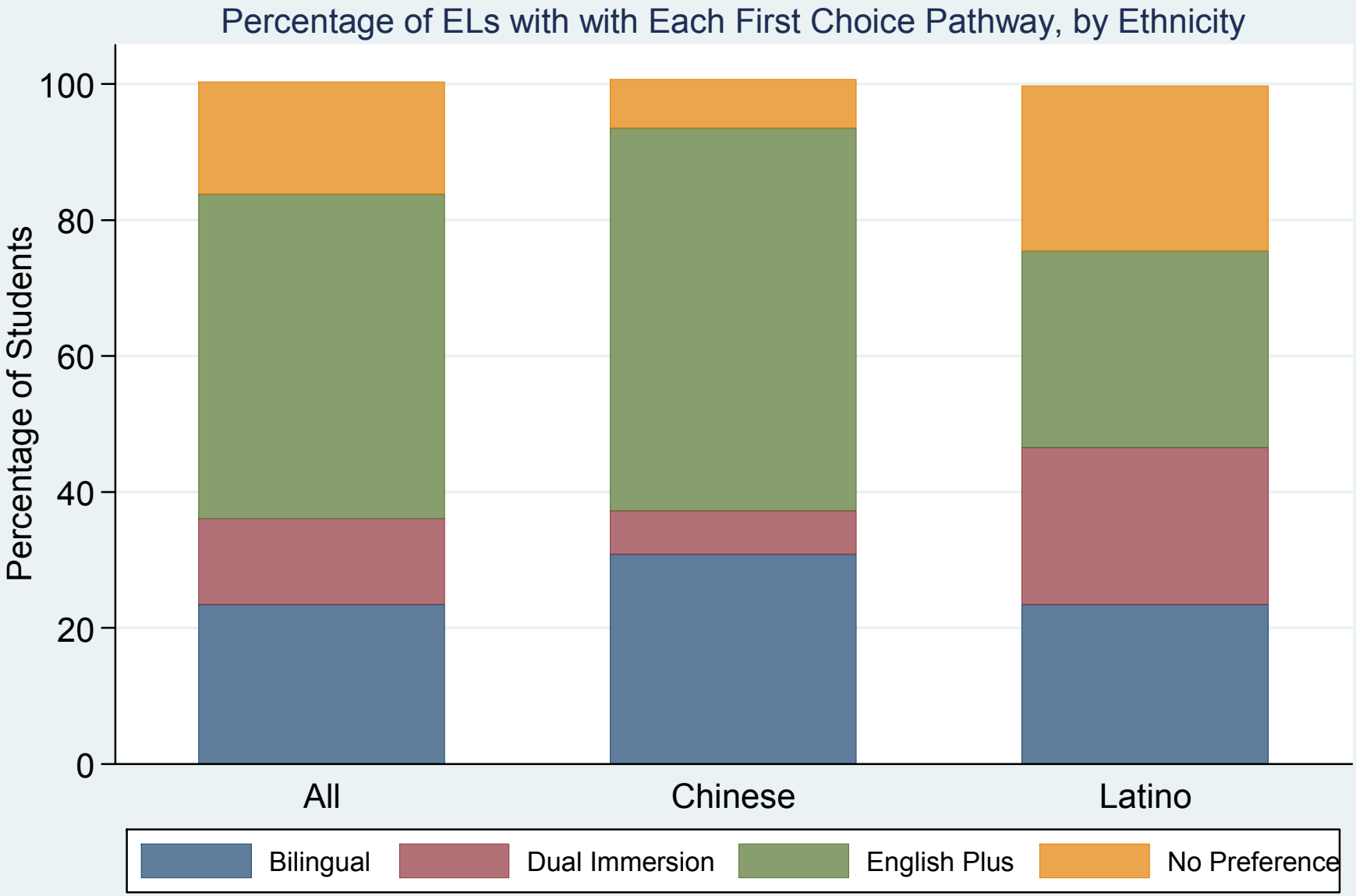
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
Newcomer
Dual Immersion
Biliteracy
Bilingual Maintenance
Bilingual Early Exit
English Plus


Percentage of ELs with with Each First Choice Pathway, by Ethnicity
Percentage of Students
100
80
60
40
20
0
All
Chinese
Latino
Bilingual
Dual Immersion
English Plus
No Preference

Study design

- Regression analyses (event history and growth modeling) of associations between pathways and student outcomes.
  - Kindergarteners classified as EL at start of K
  - Controls for demographics, initial English proficiency (CELDT speaking and listening test scores), parental school and pathway preferences

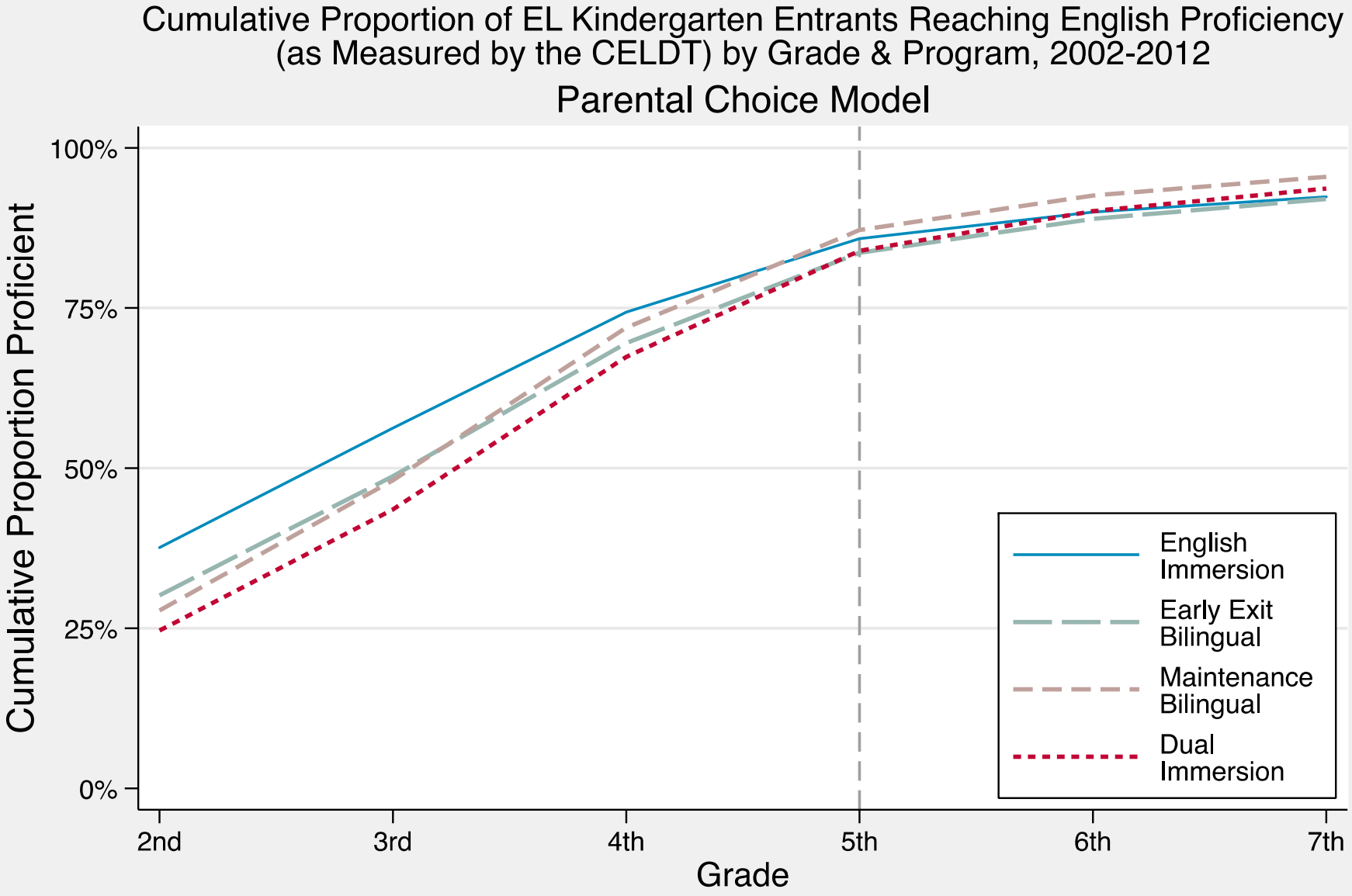
Student Outcomes

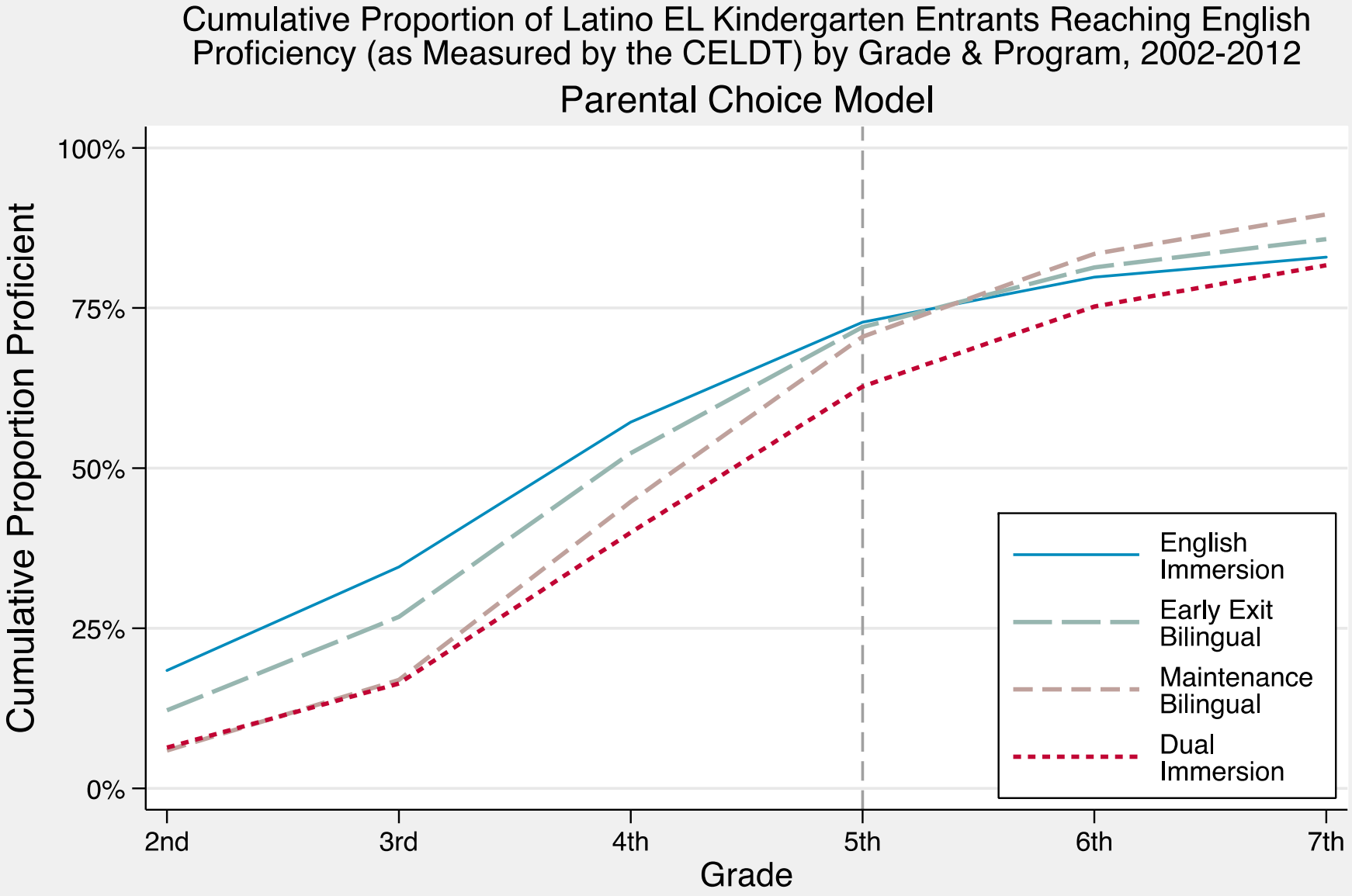
- Reclassification Criteria
  - English Proficiency - California English Language Development Test (CELDT)
  - ELA Achievement – California Standards Test (CST)
  - Eligibility for Reclassification as Fluent English Proficient
- Reclassification as Fluent English Proficient
- Math and ELA (CST) Achievement Trajectories

Key outcome patterns to attend to

- Differences in shape of outcome trajectories
- Distinction between progress toward English and academic proficiency and progress toward reclassification
- Latino/Chinese EL differences in outcomes (our study design does not address why)

English Proficiency


Cumulative Proportion of EL Kindergarten Entrants Reaching English Proficiency
(as Measured by the CELDT) by Grade & Program, 2002-2012
Parental Choice Model
Cumulative Proportion Proficient
100%
75%
50%
25%
0%
2nd
3rd
4th
5th
6th
7th
Grade
English Immersion
Early Exit Bilingual
Maintenance Bilingual
Dual Immersion


Cumulative Proportion of Latino EL Kindergarten Entrants Reaching English Proficiency (as Measured by the CELDT) by Grade & Program, 2002-2012
Parental Choice Model
Cumulative Proportion Proficient
100%
75%
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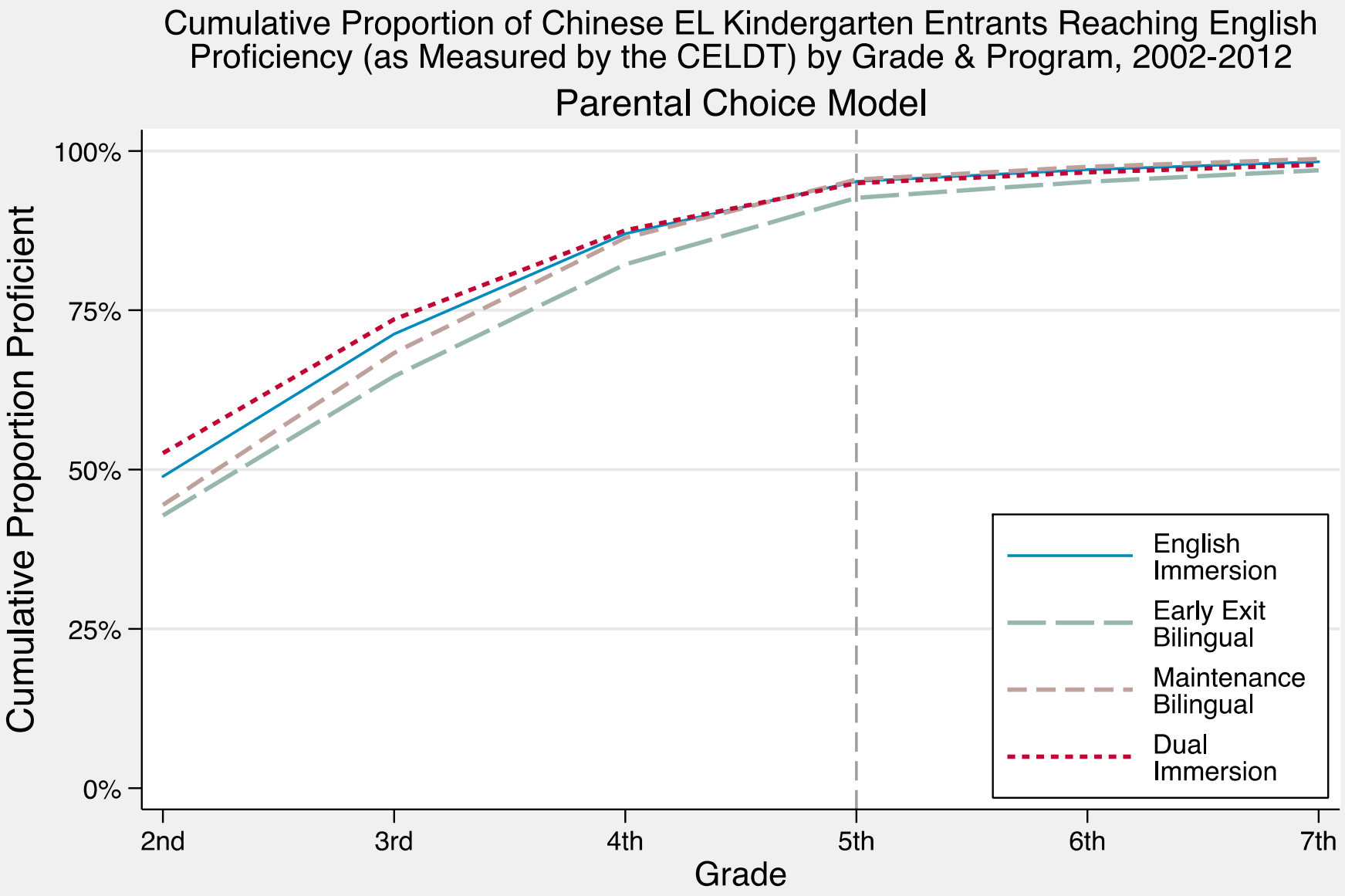
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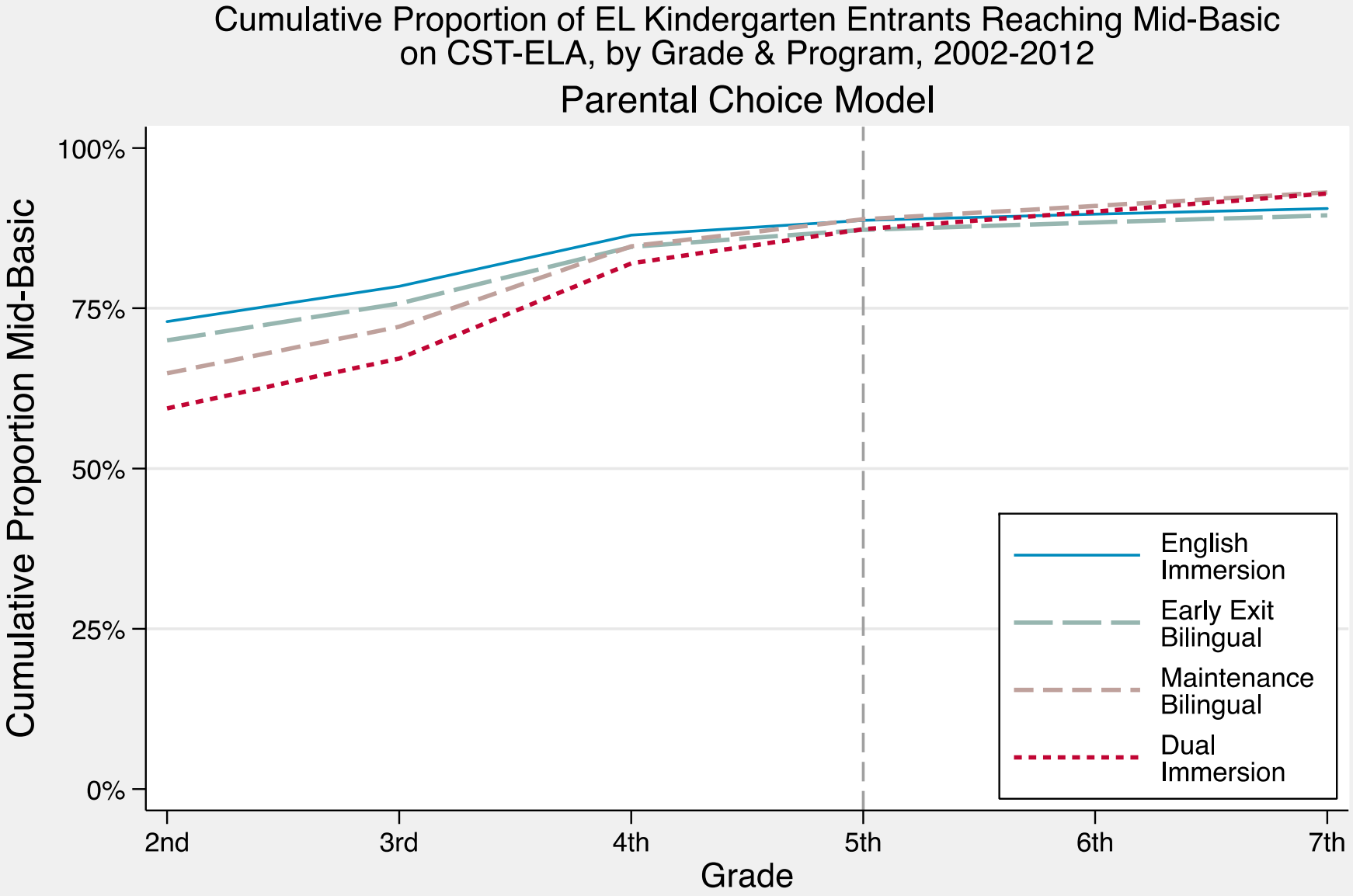
ELA Achievement Criterion


Cumulative Proportion of EL Kindergarten Entrants Reaching Mid-Basic on CST-ELA, by Grade & Program, 2002-2012
Parental Choice Model
Cumulative Proportion Mid-Basic
100%
75%
50%
25%
0%
2nd
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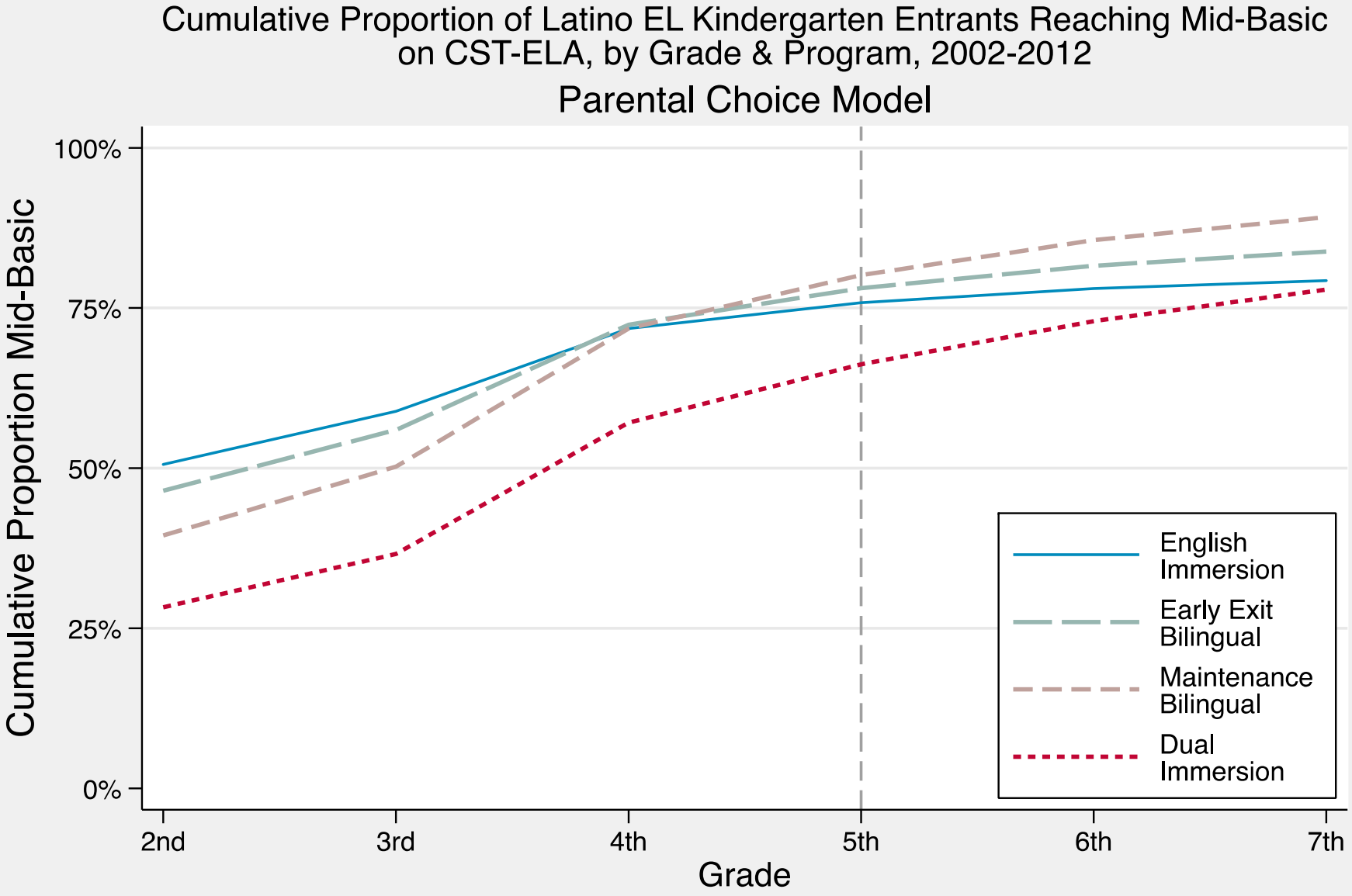
4th
5th
6th
7th
Grade
English Immersion
Early Exit Bilingual
Maintenance Bilingual
Dual Immersion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100%
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Grade
English Immersion
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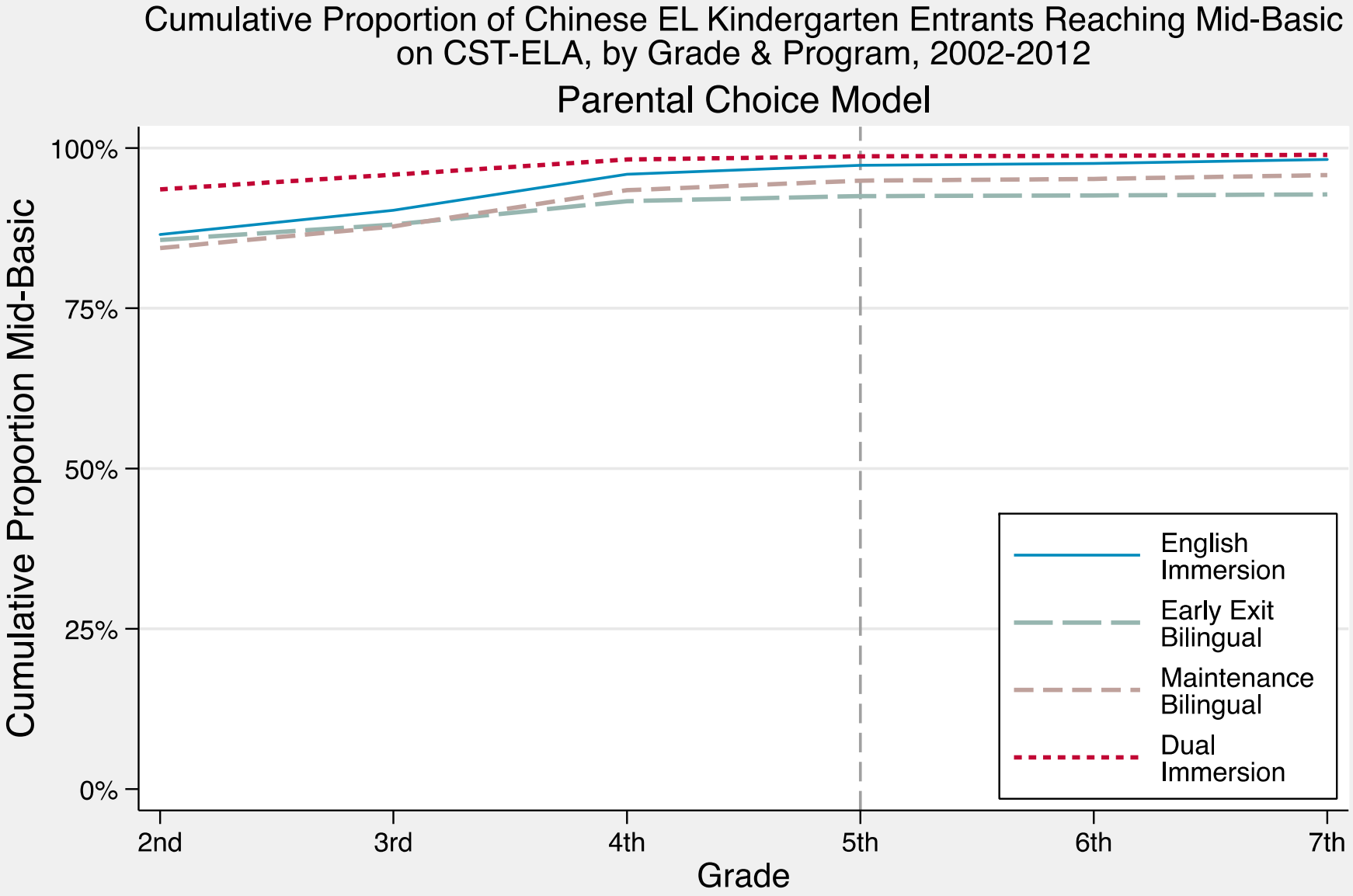
Maintenance Bilingual
Dual Immersion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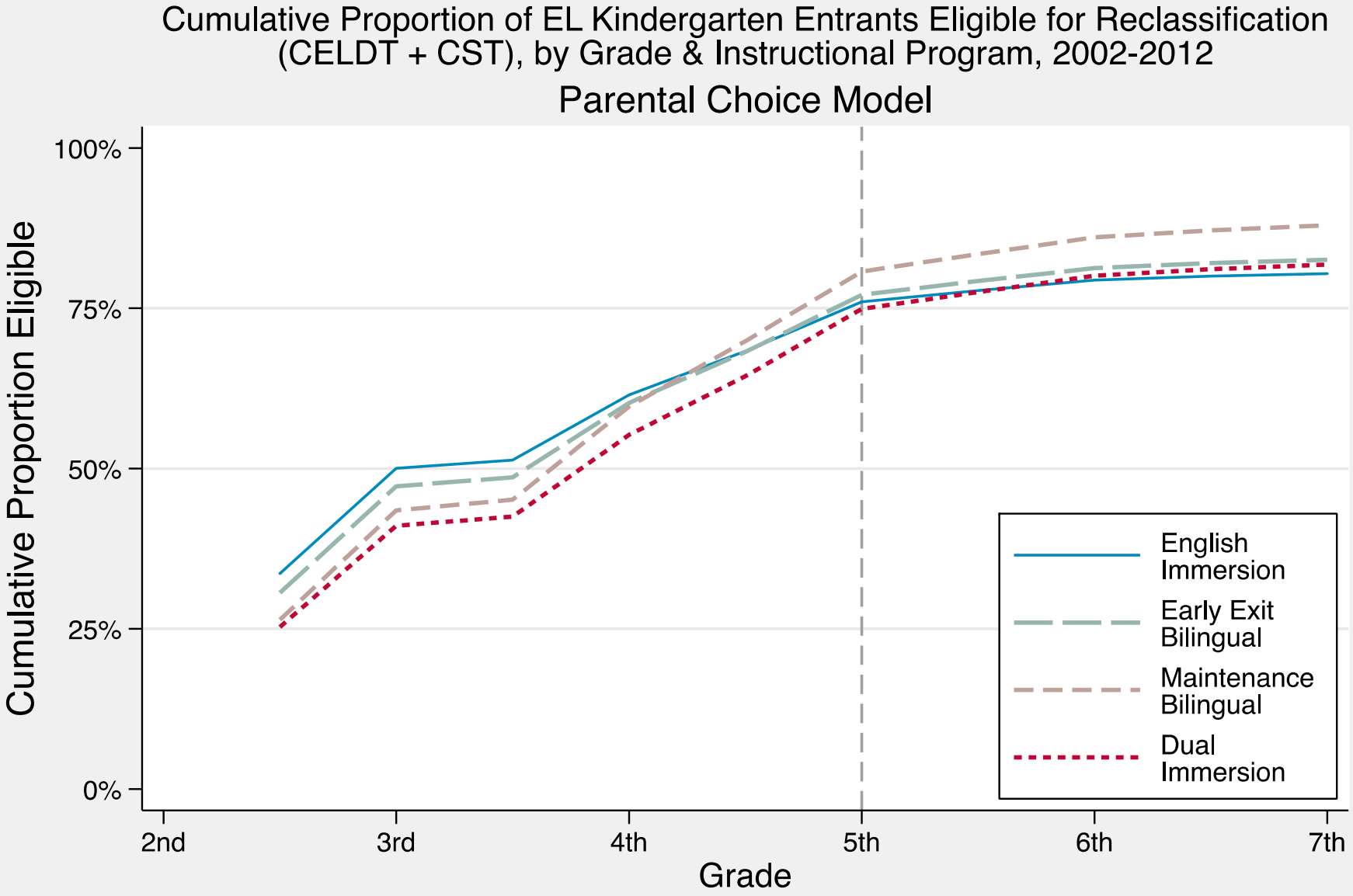
Early Exit Bilingual
Maintenance Bilingual
Dual Immersion

Eligibility for Reclassification


Cumulative Proportion of EL Kindergarten Entrants Eligible for Reclassification (CELDT + CST), by Grade & Instructional Program, 2002-2012
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English Immersion
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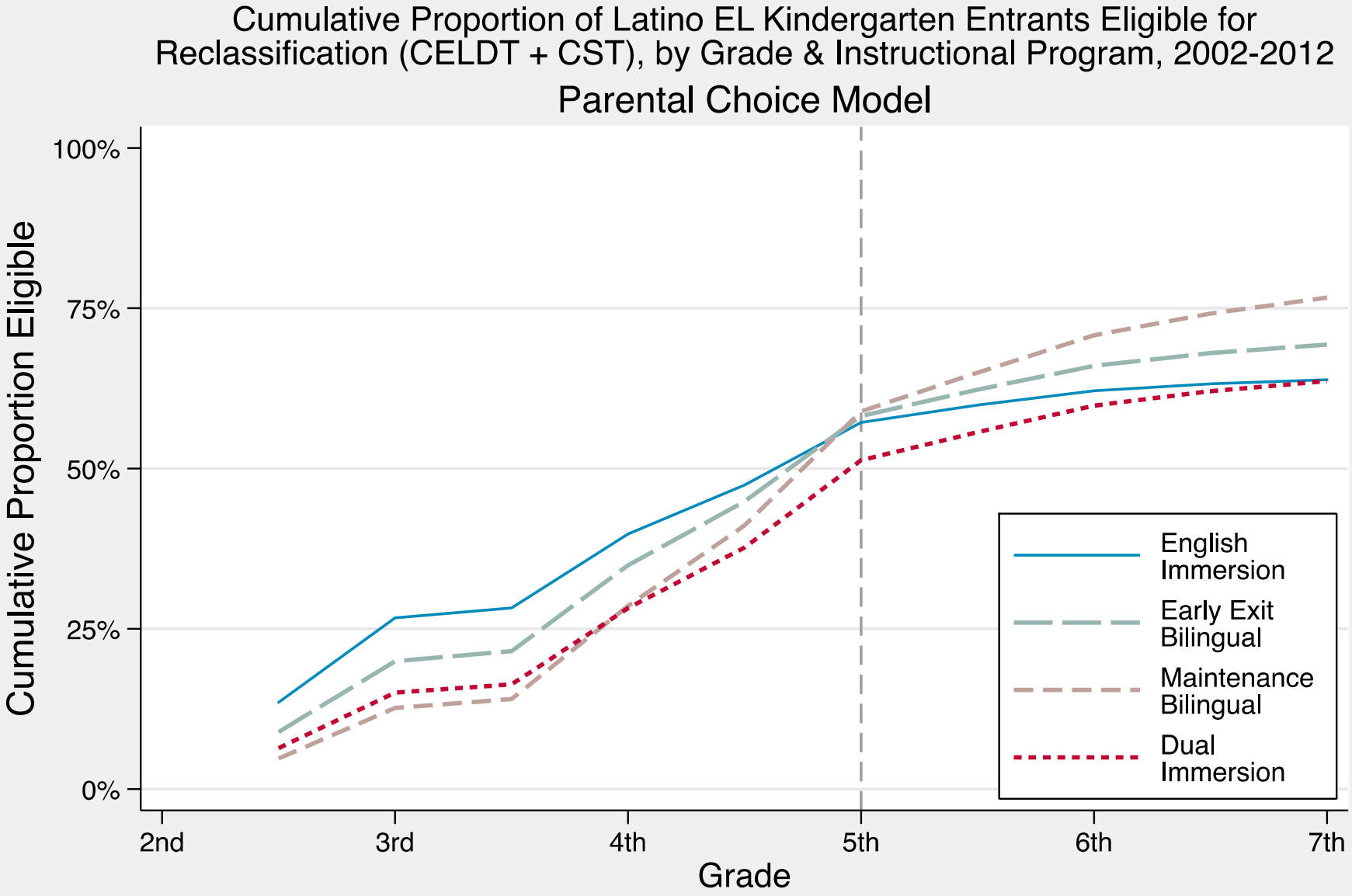
Maintenance Bilingual
Dual Immersion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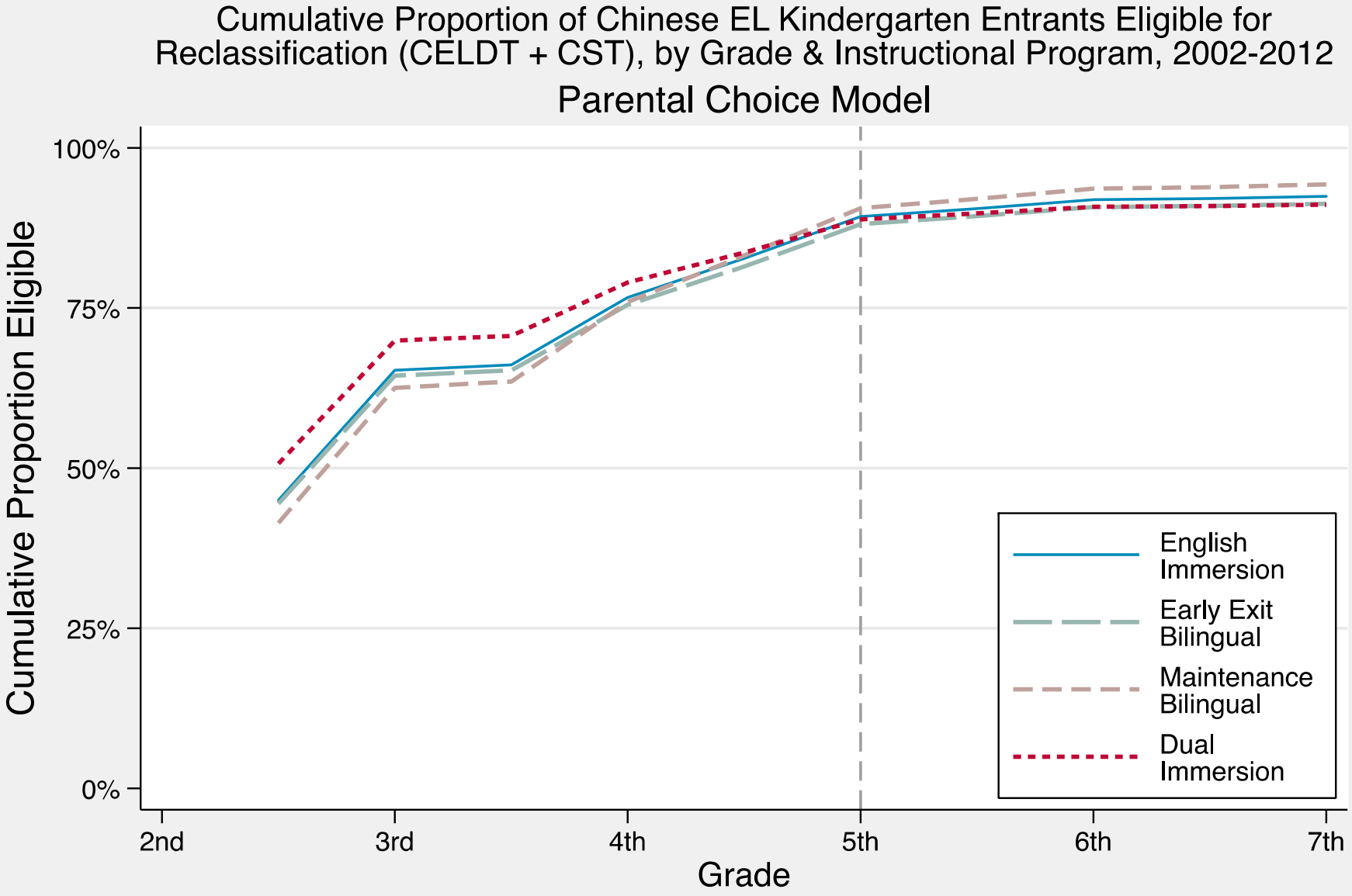
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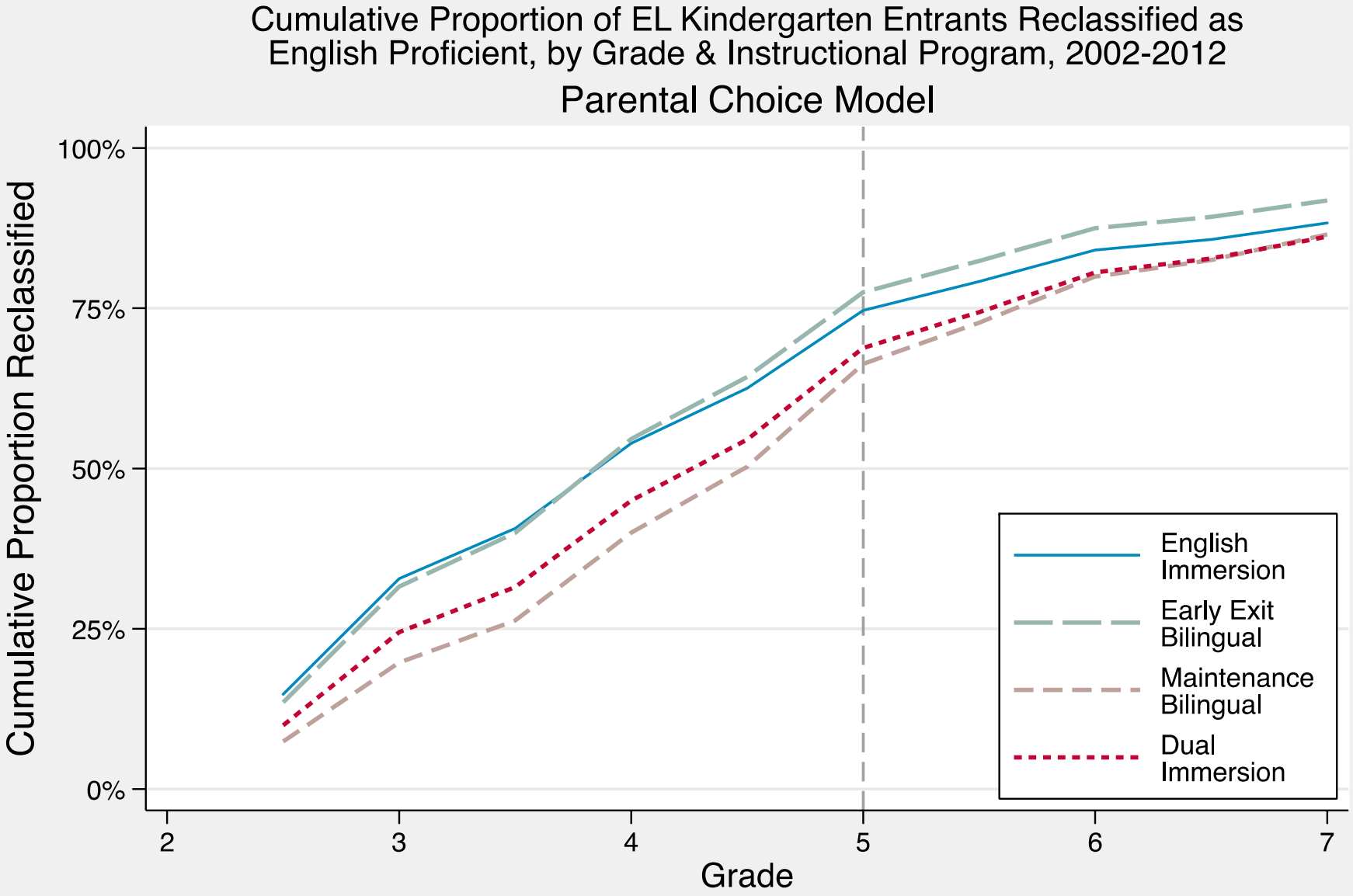
Reclassification


Cumulative Proportion of EL Kindergarten Entrants Reclassified as English Proficient, by Grade & Instructional Program, 2002-2012
Parental Choice Model
Cumulative Proportion Reclassified
100%
75%
50%
25%
0%
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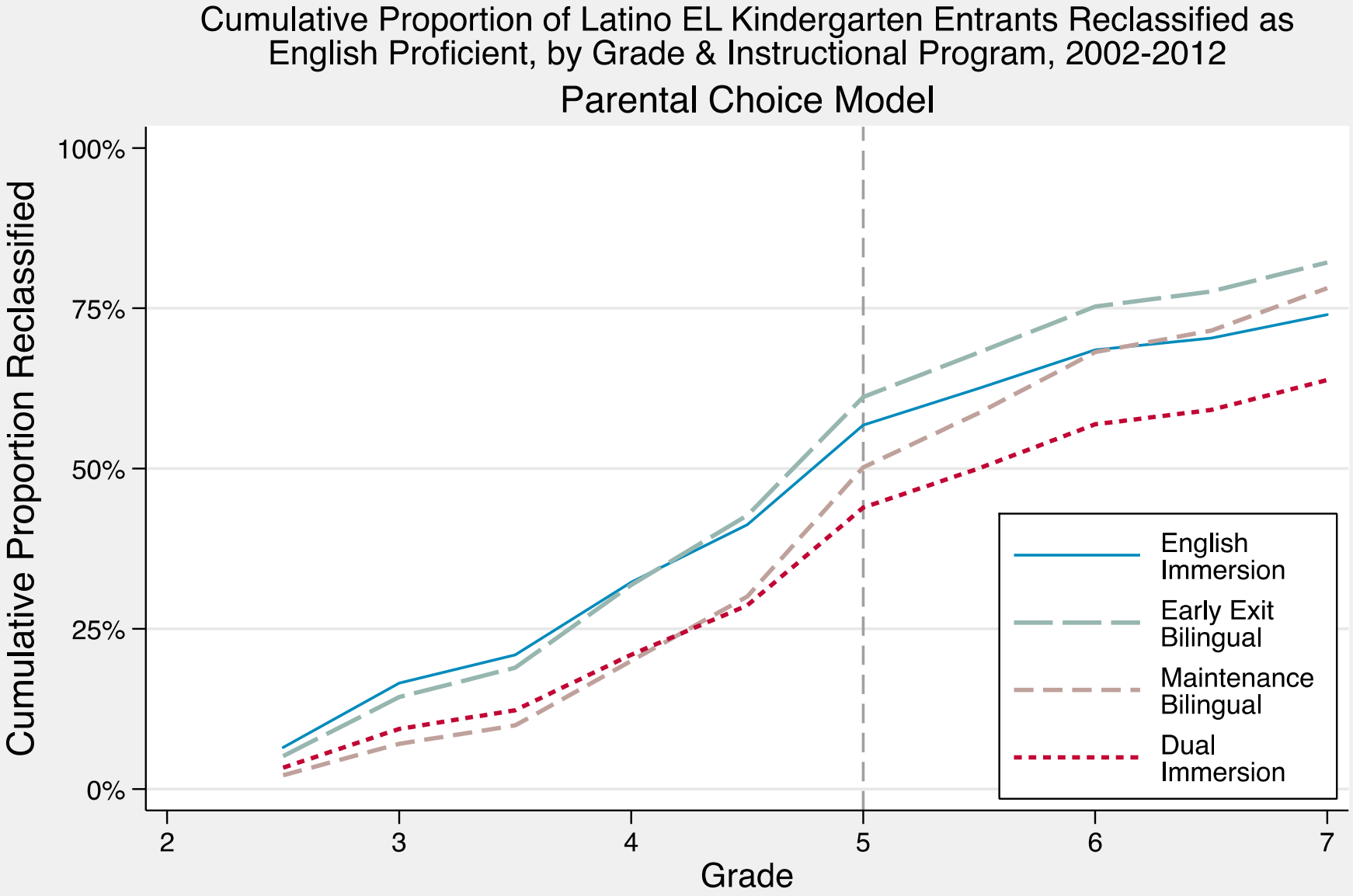
7
Grade
English Immersion
Early Exit Bilingual
Maintenance Bilingual
Dual Immersion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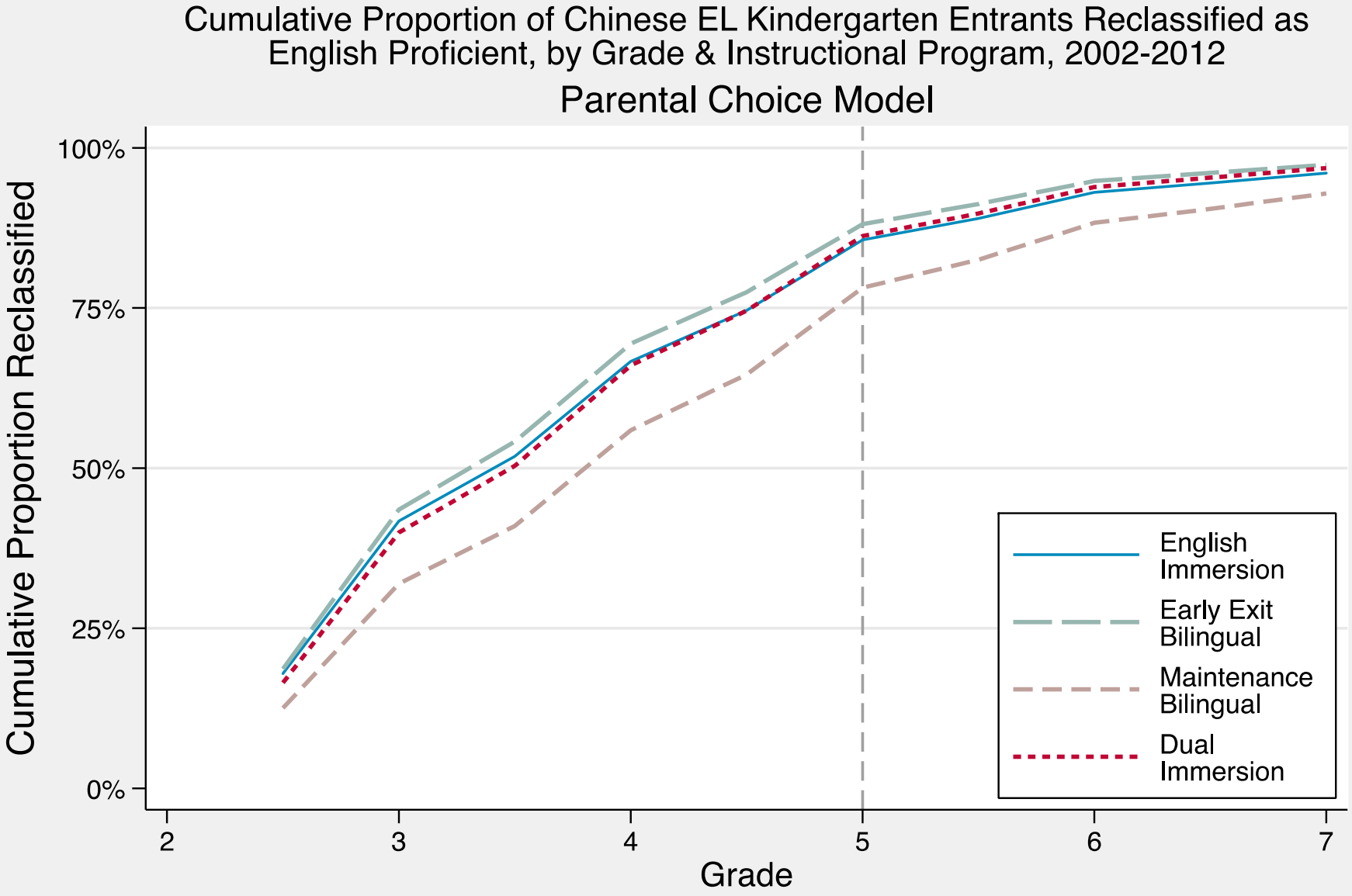
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25%
0%
2
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6
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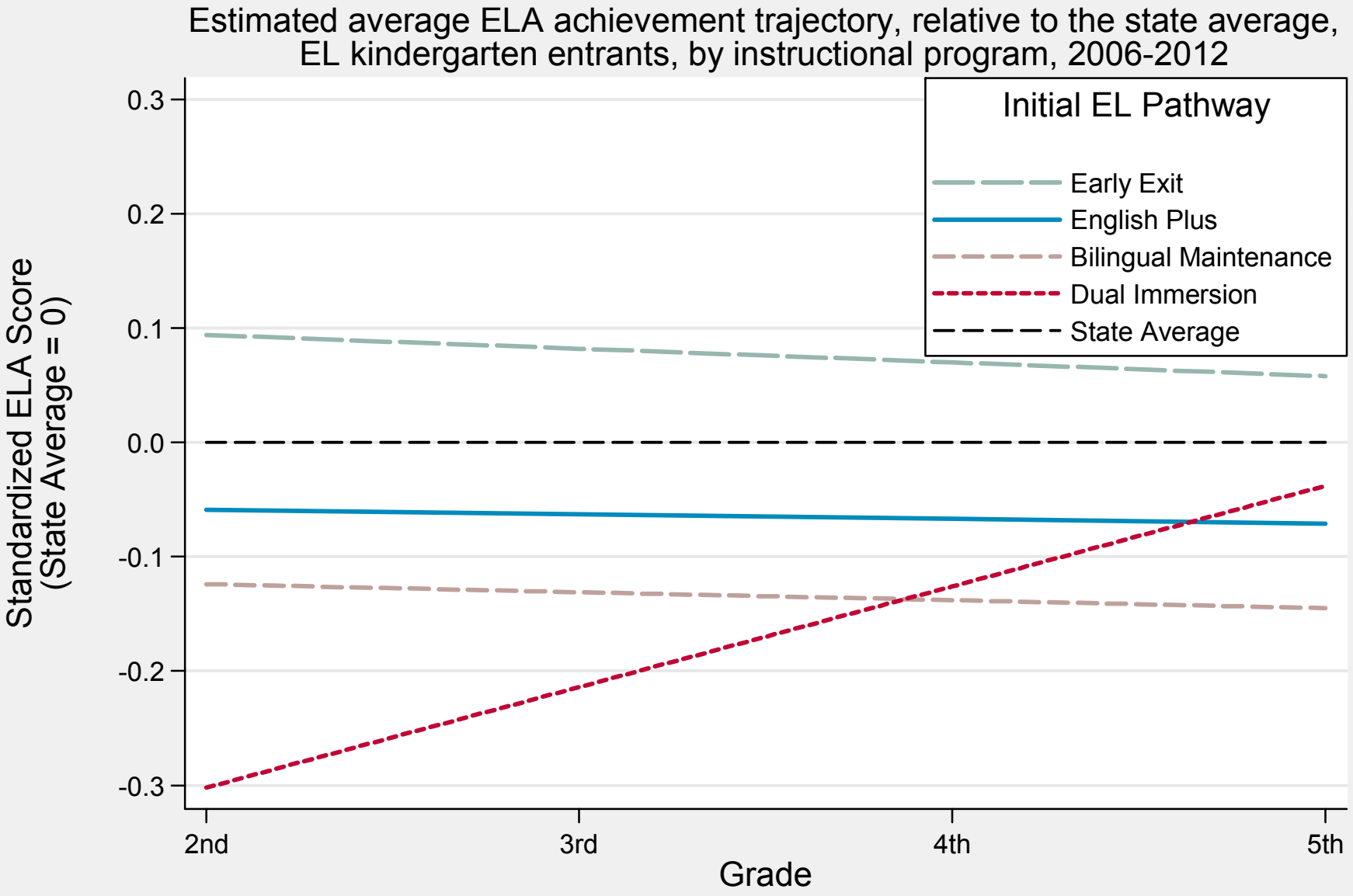
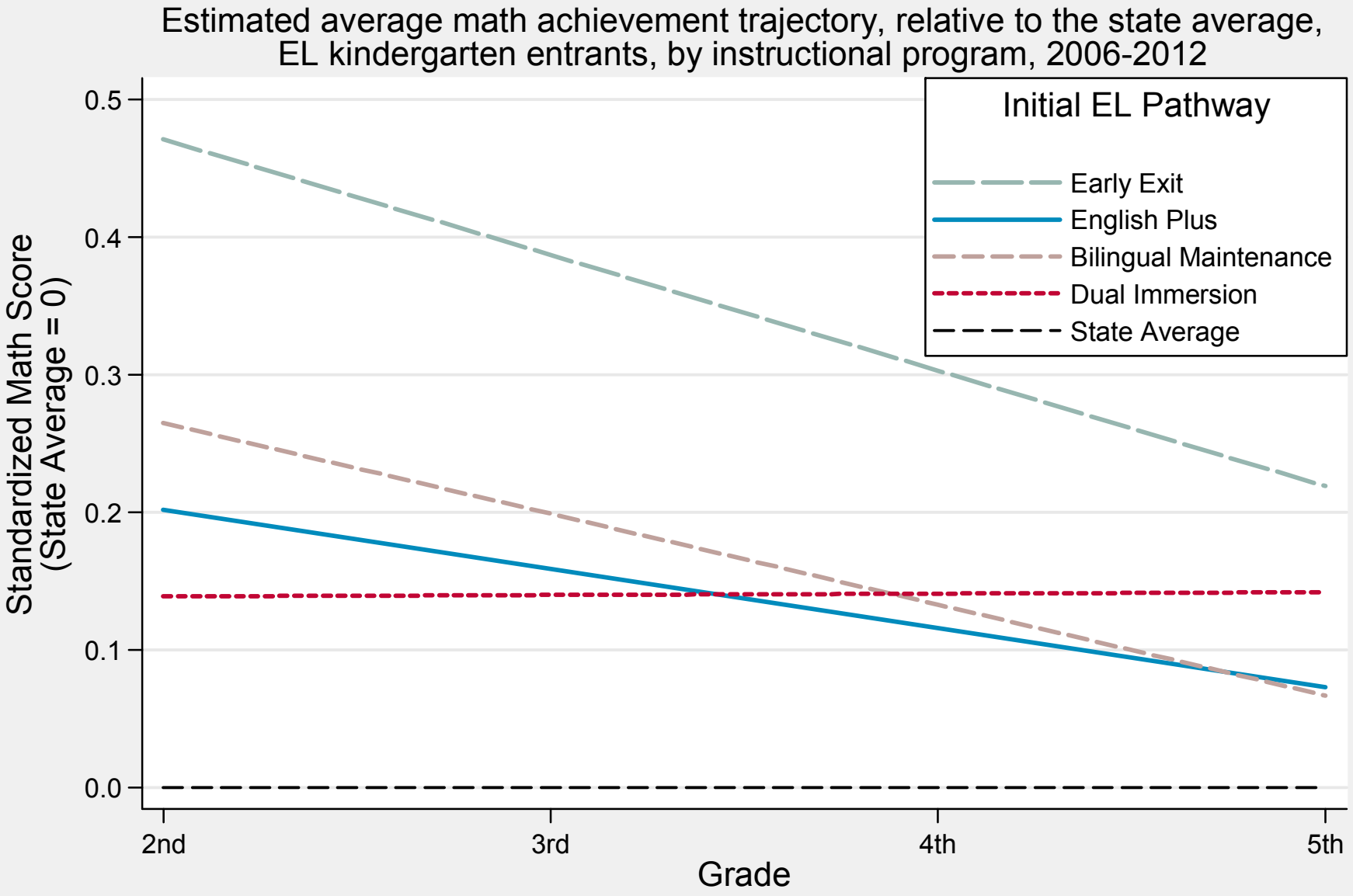
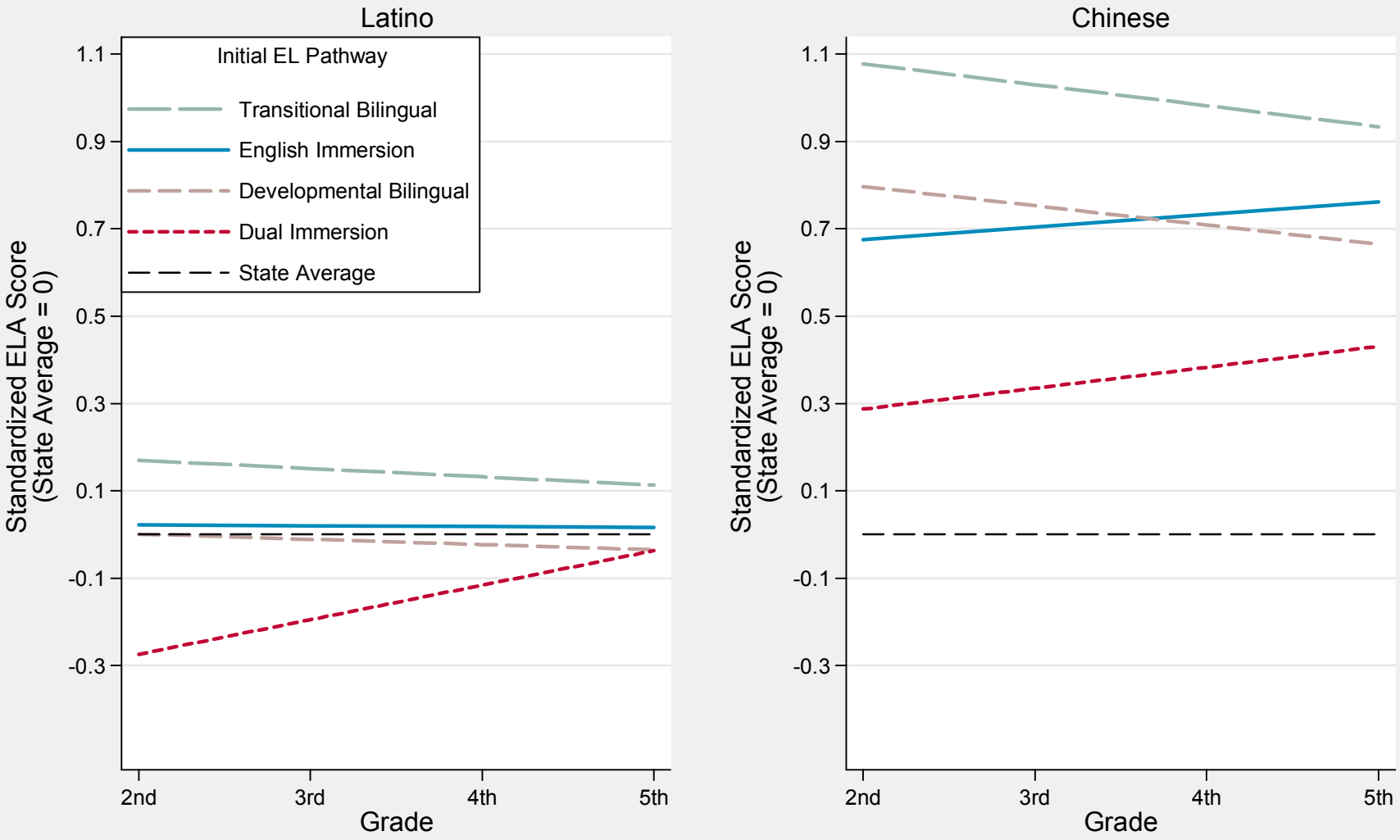
Grade
English Immersion
Early Exit Bilingual
Maintenance Bilingual
Dual Immersion

ELA and Math Achievement Trajectories

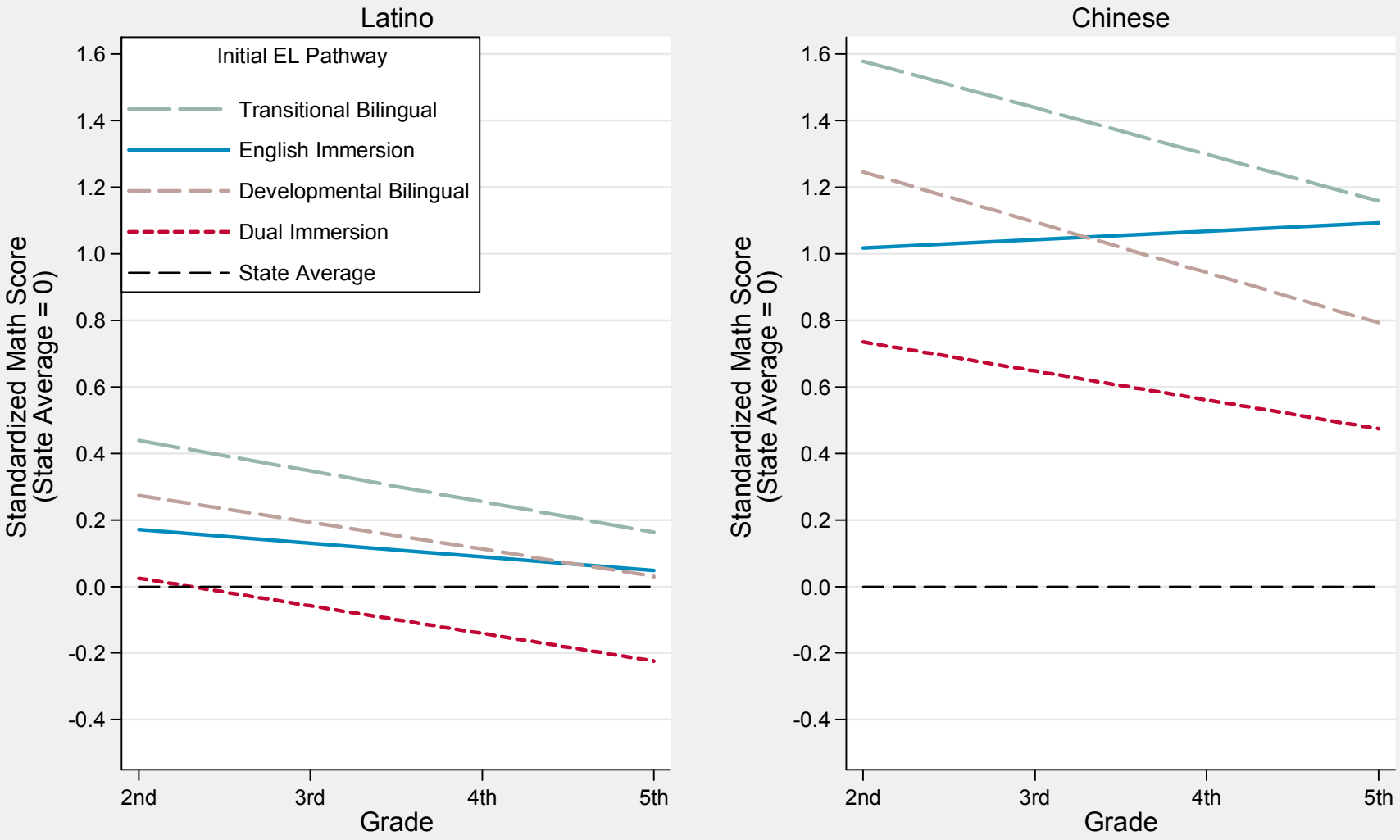

Estimated average ELA achievement trajectory, relative to the state average,
EL kindergarten entrants, by instructional program, 2006-2012
Standardized ELA Score
(State Average = 0)
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
2nd
3rd
4th
5th
Grade
Initial EL Pathway
Early Exit
English Plus
Bilingual Maintenance
Dual Immersion
State Average


Estimated average math achievement trajectory, relative to the state average,
EL kindergarten entrants, by instructional program, 2006-2012
Standardized Math Score
(State Average = 0)
0.5
0.4
0.3
0.2
0.1
0.0
2nd
3rd
4th
5th
Grade
Initial EL Pathway
Early Exit
English Plus
Bilingual Maintenance
Dual Immersion
State Average

Estimated average ELA trajectory, relative to state average: EL kindergarten entrants, by instructional program and ethnicity, 2006-2012, controlling for preferences



Estimated average math trajectory, relative to state average: EL kindergarten entrants, by instructional program and ethnicity, 2006-2012, controlling for preferences

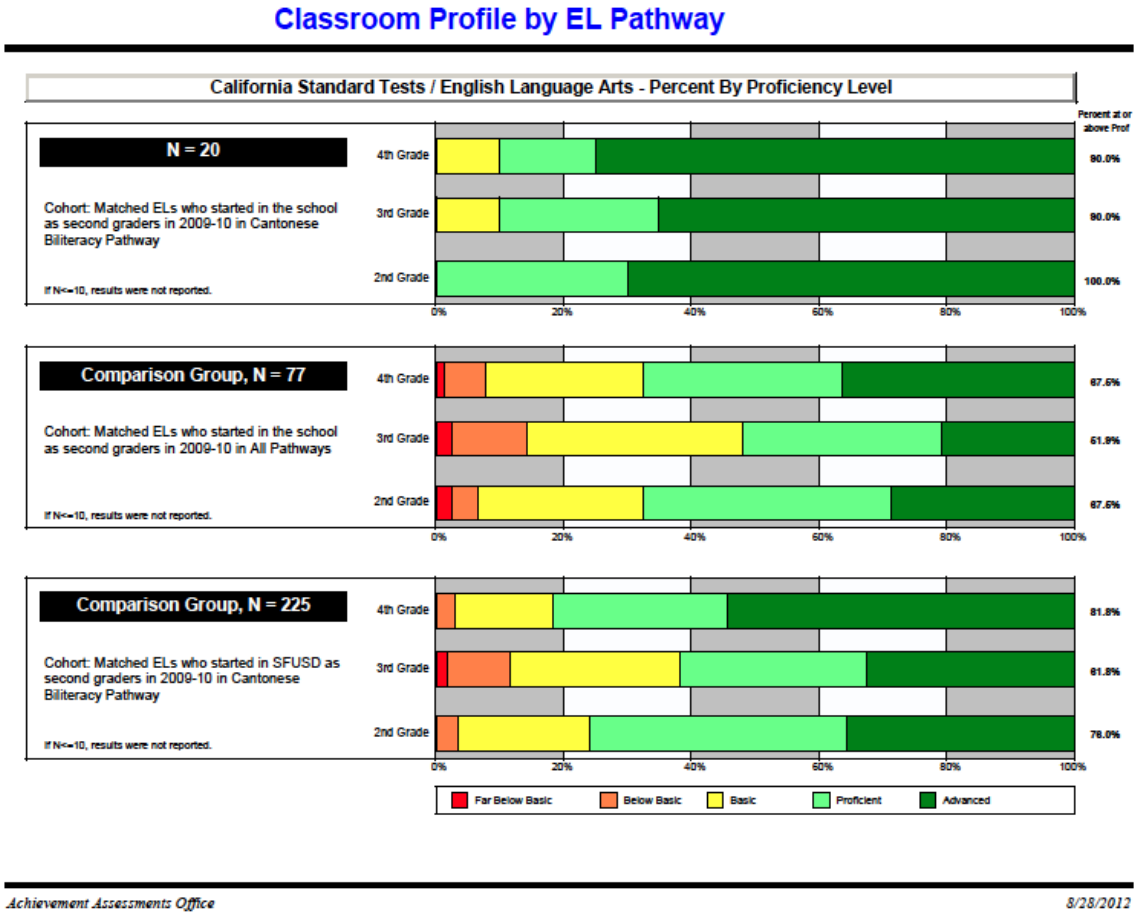


Policy/practice implications in SFUSD

- District has created school-level EL report cards
- Broad within-district dissemination of findings
  - Superintendent
  - Board
  - EL Staff
  - Community Forum
  - Information for parents
- Policy and practice implications

An example of the research informing school evaluation of EL instructional programs

The process of cleaning the district's data for English Learners has helped the district to be able to generate its own analysis of the achievement trends to share with key stakeholders and school sites.



EL Pathway Data Impact on School Action Plans

	School Level Sample of Strategic Actions	
	Pre EL Pathways	**Post EL Pathways**
School A	Implement school-wide pull out program for English Language Learners.	Vital components that must be in place for X School's **dual language program** include clear benchmarks in Chinese/Mandarin, assessments that measure student progress toward those benchmarks, curricular tools (texts etc.) to support students in meeting benchmarks.
School B	School-wide ELD instruction: All teachers are receiving professional development in Results for English Language Learners. In the spring of 2010, we tested and placed our students in leveled groups. Each day, students begin with their ELD teacher for targeted and systematic English classes. Teachers meet in grade level teams once per week with our Instructional Reform Facilitator to look at student data and design lessons.	**Biliteracy Program**: Class size reduction teacher for the 5th grade and support personnel for 4th grade (which will no longer have class size reduction) to help provide a seamless bilingual program. These supports make it possible for a one hour, content-based native language block of instruction each school day. These supports allow for two additional ELD leveled class which benefits third, fourth and fifth grades.
Summary	Tend to be generalized across the school.	Tend to be very specific, grade level and program focused.

Moving Forward

Continue to enhance and expand EL pathways PreK-12:

- Proactively recruit and hire bilingual and biliterate teachers to appropriately staff pathway expansions.
- Provide adequate professional development opportunities to effectively support language pathway teachers.
- Identify and/or develop target language instructional materials and assessments aligned to the core curriculum.
- Transition to the new English Language Development (ELD) Standards that will increase the rigor of dedicated and integrated ELD for English Learners.