Who Chooses Dual Language Education? The Role of Perceptions of Bilingualism and Caregiver Background in a Rural School District

Sarah Surrain,
Alena Esposito
& Gigi Luk

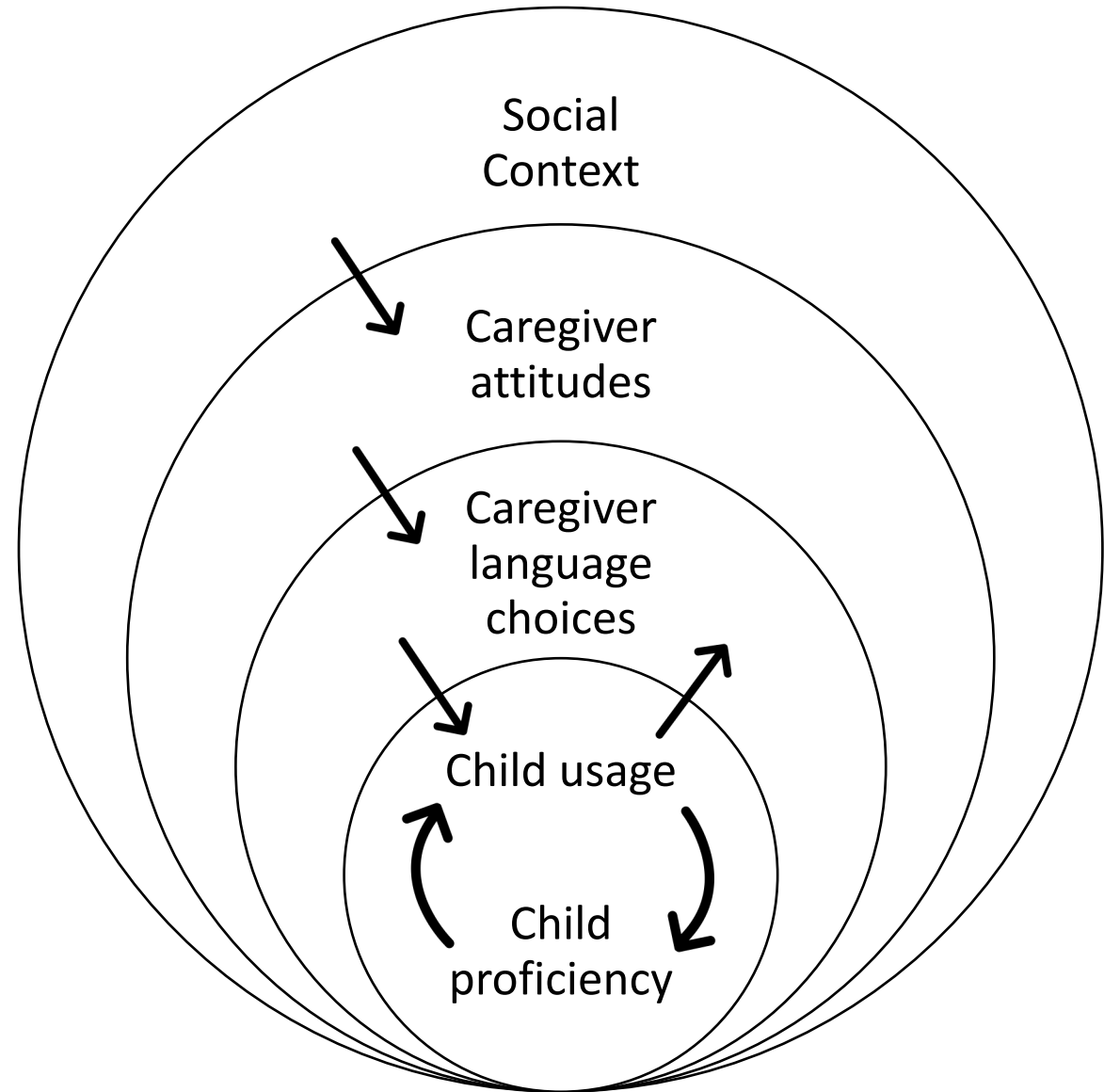SRCD Biennial Meeting
March 22nd, 2019
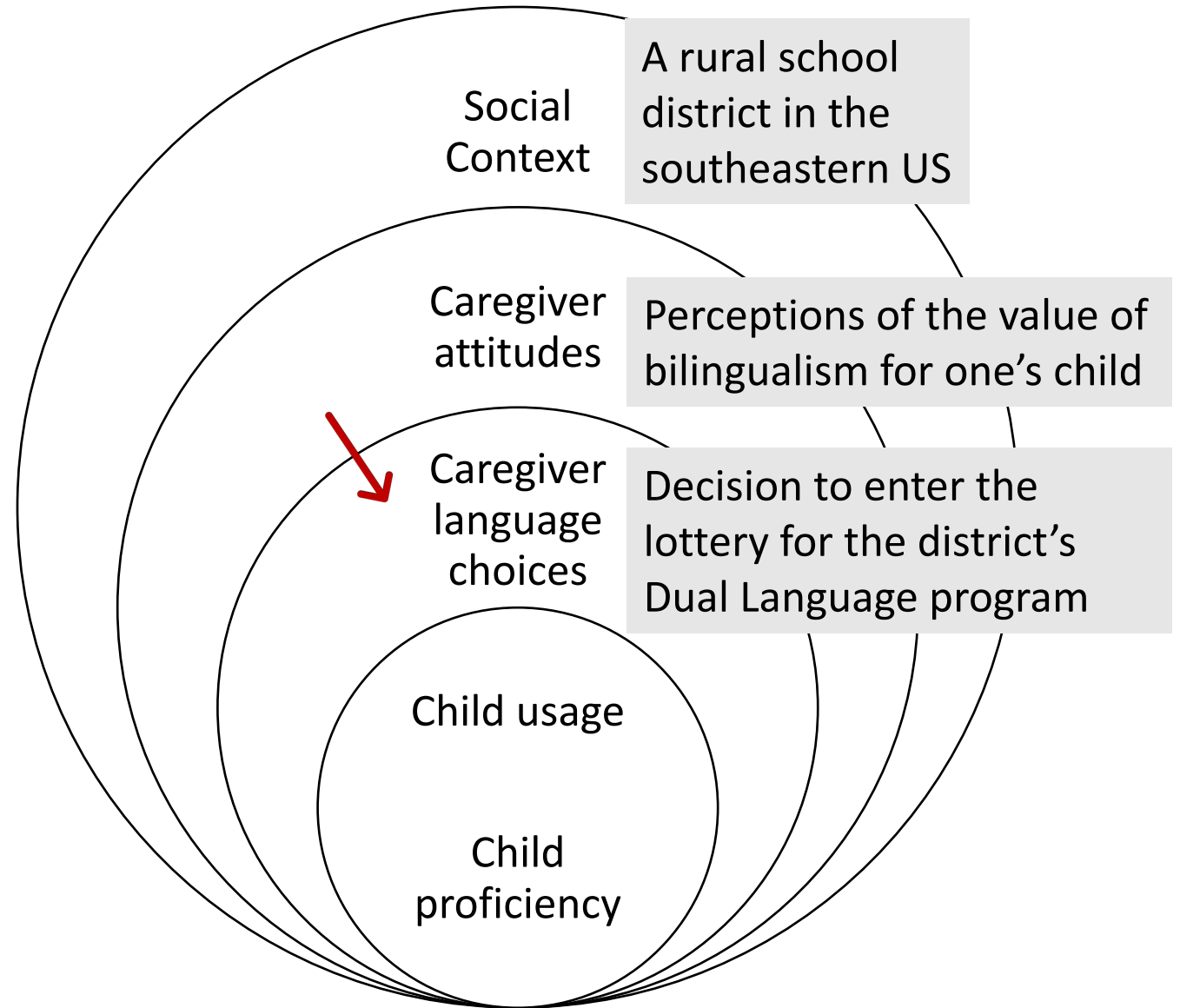
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How do contextual factors shape children's bilingual development?

Social Context

Caregiver attitudes

Caregiver language choices

Child usage

Child proficiency

(Bronfenbrenner, 1977; De Houwer, 1999; Hamers & Blanc, 1982; Pearson, 2007)

How do contextual factors shape children's bilingual development?

Social Context — A rural school district in the southeastern US

Caregiver attitudes — Perceptions of the value of bilingualism for one's child

Caregiver language choices — Decision to enter the lottery for the district's Dual Language program

Child usage

Child proficiency

Times-Republican

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Woodbury Elementary dual-language program offers unique learning opportunity

The New York Times

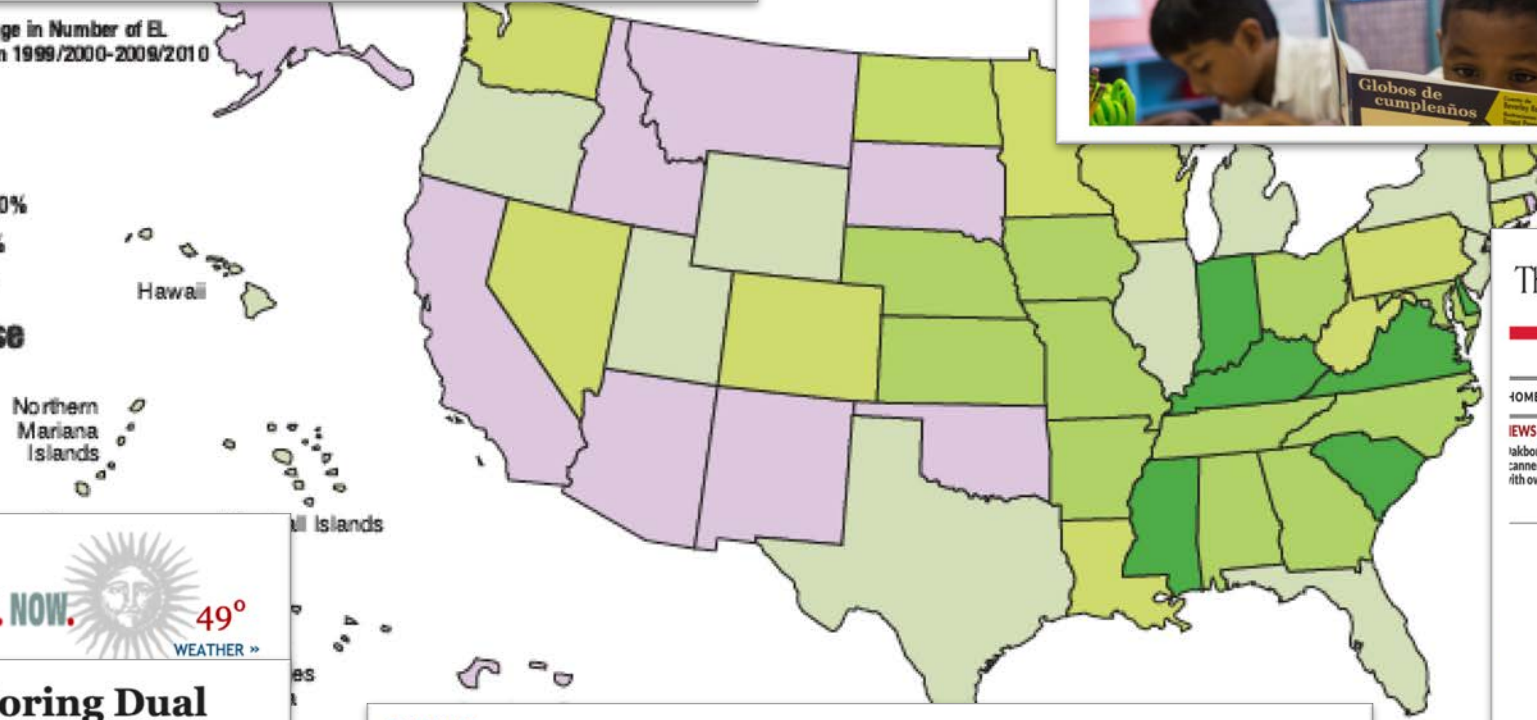*Dual-Language Programs Are on the Rise, Even for Native English Speakers*

Percent Change in Number of EL Students from 1999/2000–2009/2010

Growth
- >200%
- 100% - 200%
- 50% - 99%
- 0% - 49%

Decrease
- 1%-60%

Hawaii

Northern Mariana Islands

The Stanly News & Press ☼ 52°

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Dual language program coming to Endy Elementary next school year

By Chris Miller
Email the author

Published 3:05 pm Monday, February 4, 2019

Santa Barbara Independent WHO. WHAT. NOW. 49° WEATHER »

School District Exploring Dual Language Program

Forty-Three Percent of Santa Barbara Students Are Native Spanish Speakers

Thursday, February 14, 2019
by **BLANCA GARCIA (CONTACT)**

Education

Bilingual education in the South: It is happening, even here

WBHM

December 01, 2015 · 11:45 AM EST

By **Dan Carsen**

Global Nation

Puerto Rico

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Parent attitudes and dual language (DL) programs

- Parents of children in DL programs tend to hold positive attitudes towards bilingualism (Craig, 1996; Lindholm-Leary, 2001; Parkes, 2008).

- Reasons for choosing DL programs differ by language background.
  - Language minority parents: sustain language and culture (Farruggio, 2010)
  - Language majority parents: exposure to diversity (Craig, 1996), cognitive benefits (King & Fogle, 2006)

- Most studies only include parents of children enrolled in DL programs (e.g. Giacchino-Baker & Piller, 2006; Ramos, 2007).

- Few studies have looked at rural districts with newer immigrant populations.
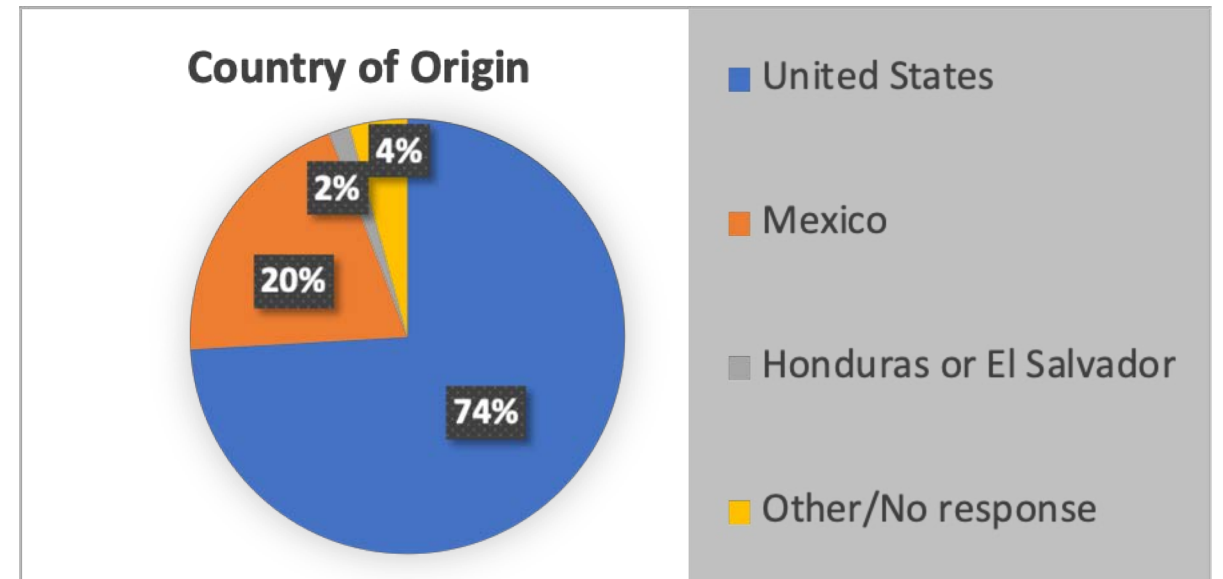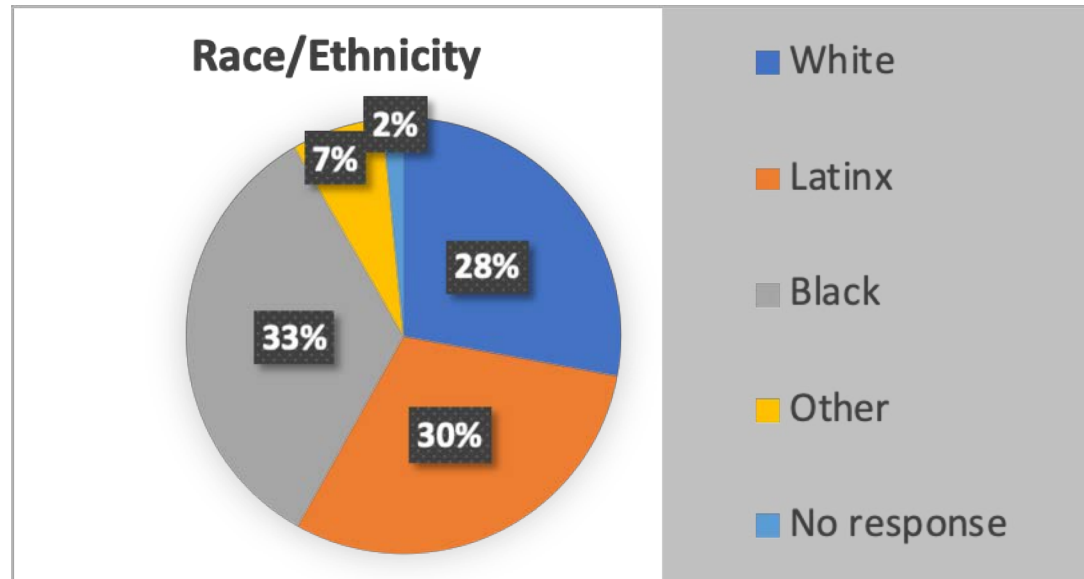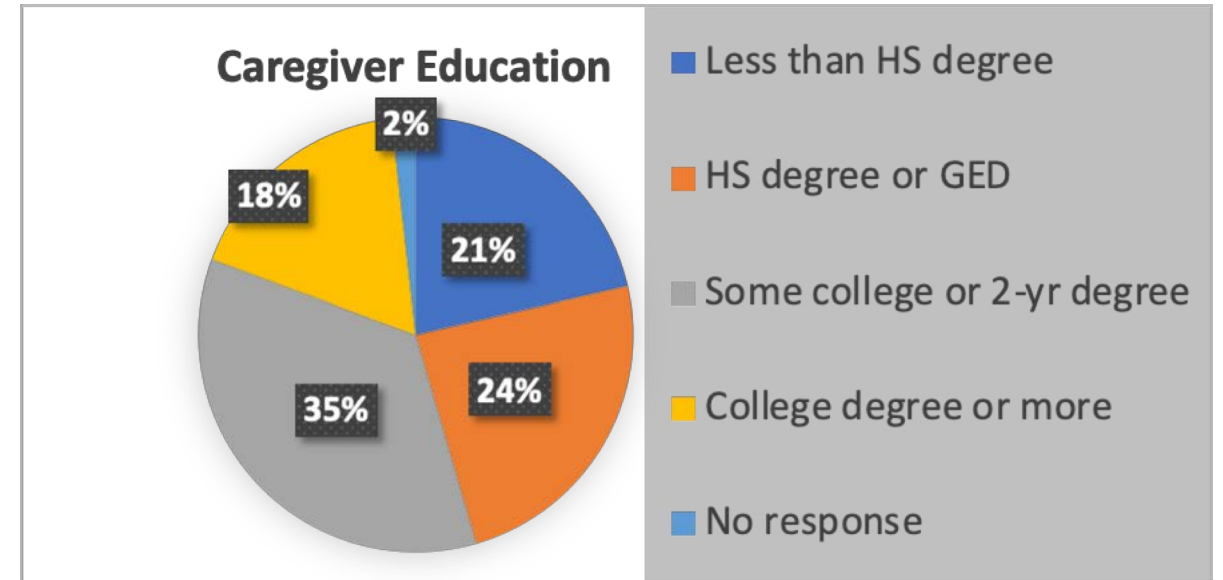
The current study

- A rural school district that opened a DL program in 2002
  - 50% Spanish / 50% English instruction
  - Same school buildings as traditional classrooms
  - Goal is bilingualism for children from English- and Spanish-speaking families
  - Families can choose to enter the DL lottery when registering for K
  - Approximately 30% enter the lottery and 17% are placed each year

- Research Questions
  - Do Spanish and English-speaking caregivers in a rural southeastern school district perceive bilingualism as valuable for their child?
  - What is the association between caregiver language background and entering the Dual Language program lottery?
  - Do caregivers' perceptions of the value of bilingualism explain additional variation in the likelihood of entering the lottery?

Data collection

- Part of a larger longitudinal study in the district (Esposito & Baker-Ward, 2013; Esposito & Bauer, 2018)
- A paper survey was distributed to families of all 940 2nd-5th graders (ages 7-11) in Fall 2017
  - Demographic information
  - Parent and child language background
  - History of entering DL lottery and placement
  - Perceptions of Bilingualism scale (PoB+; Surrain & Luk, in preparation)
- 63% response rate
- We selected one survey per family; oldest or only child with complete data on key variables (n = 444)

Participants (n = 444)

- Caregivers' relationship to child
  - 81% mothers
  - 7% fathers
  - 5% grandparents
  - 7% other or no response

Caregiver Education

- Less than HS degree
- HS degree or GED
- Some college or 2-yr degree
- College degree or more
- No response

2%, 18%, 21%, 35%, 24%

Race/Ethnicity

- White
- Latinx
- Black
- Other
- No response

2%, 7%, 28%, 33%, 30%

Country of Origin

- United States
- Mexico
- Honduras or El Salvador
- Other/No response

4%, 2%, 20%, 74%

Caregiver language background

- 64% spoke English only
- 36% spoke Spanish
  - Diverse group including monolingual Spanish speakers and individuals with varied language histories and current usage
- 24% entered DL Program lottery
- 18% placed in DL program

Language(s) spoken at home

- English
- Spanish
- English & Spanish
- No response

2%
18%
14%
66%
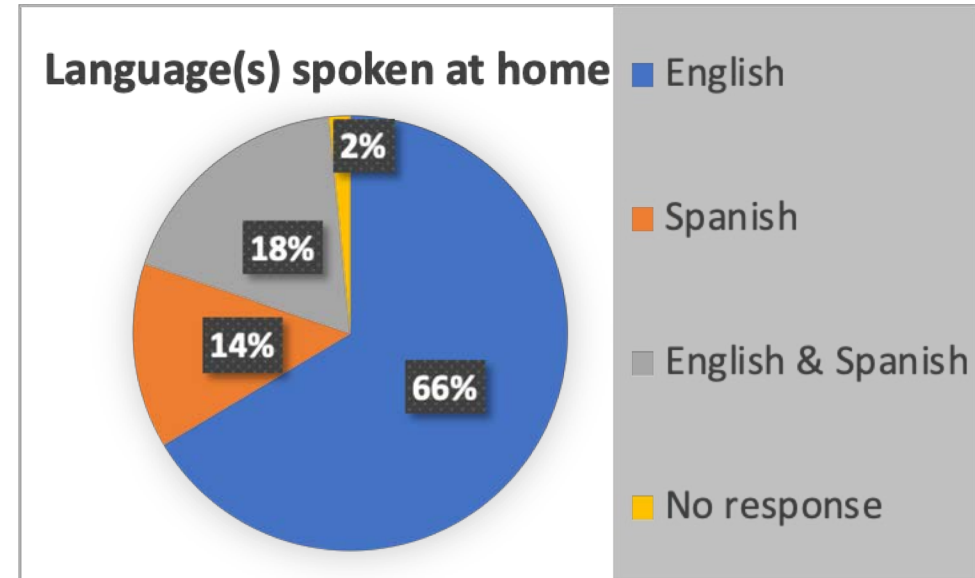
Perceptions of Bilingualism (PoB+) scale

|	Factor loading
It is important for my child to learn to READ and WRITE more than one language.	.91
It is important for my child to SPEAK more than one language.	.88
Speaking more than one language will help my child succeed in school in the long term.	.88
Speaking more than one language will help my child compete in the job market.	.80
Speaking more than one language will help my child become a stronger thinker.	.75
Speaking more than one language will help my child understand people from different cultural backgrounds.	.67
To be successful, the ONLY language my child needs to speak well is English. (Reversed)	.54
My child will be confused if he or she learns two languages at the same time. (Reversed)	.36

- 6-point Likert scale from strongly disagree (1) to strongly agree (6)
- Cronbach's alpha = .89
- 96% of the variance explained by one factor
- PoB+ score is average of 8 items (2 reverse-coded)
- M = 4.55, SD = 1

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Which caregivers entered the DL lottery?
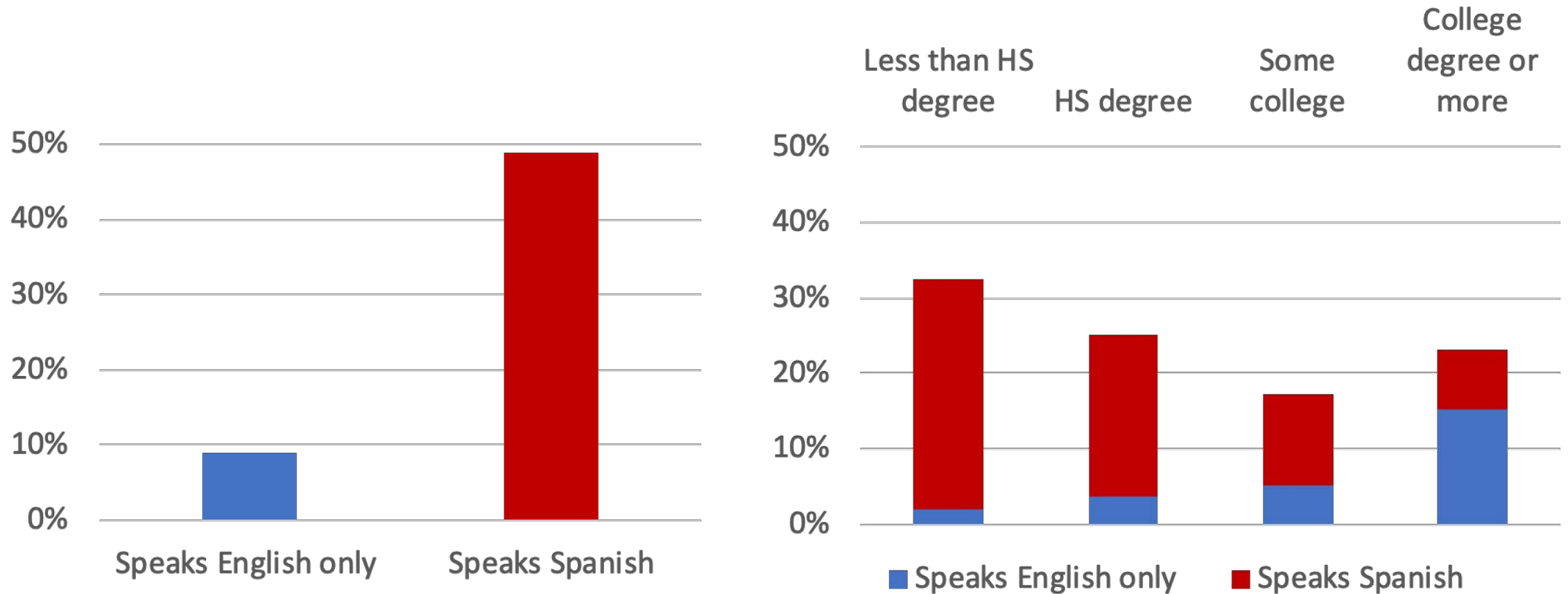
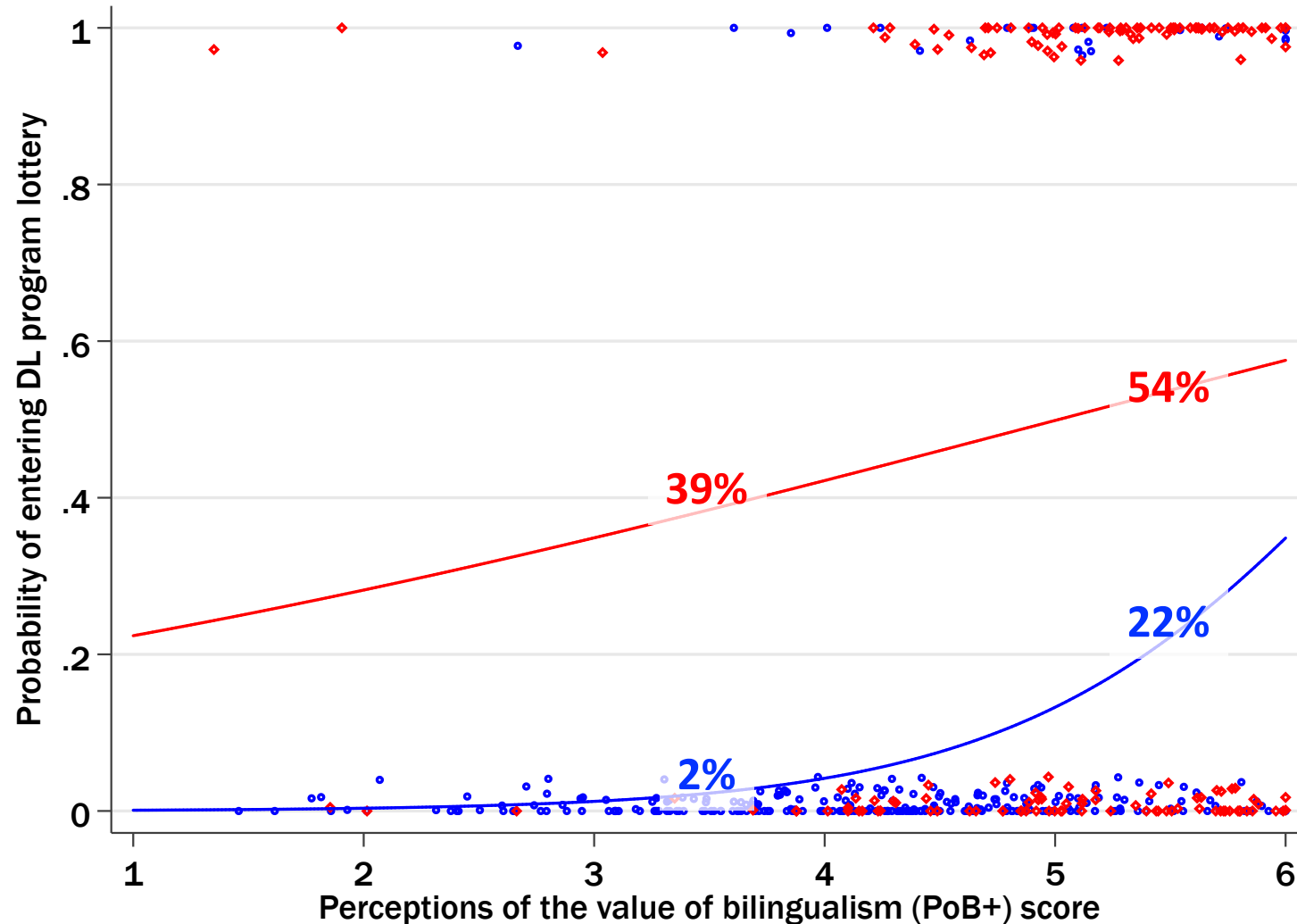# How do caregivers perceive the value of bilingualism for their child?
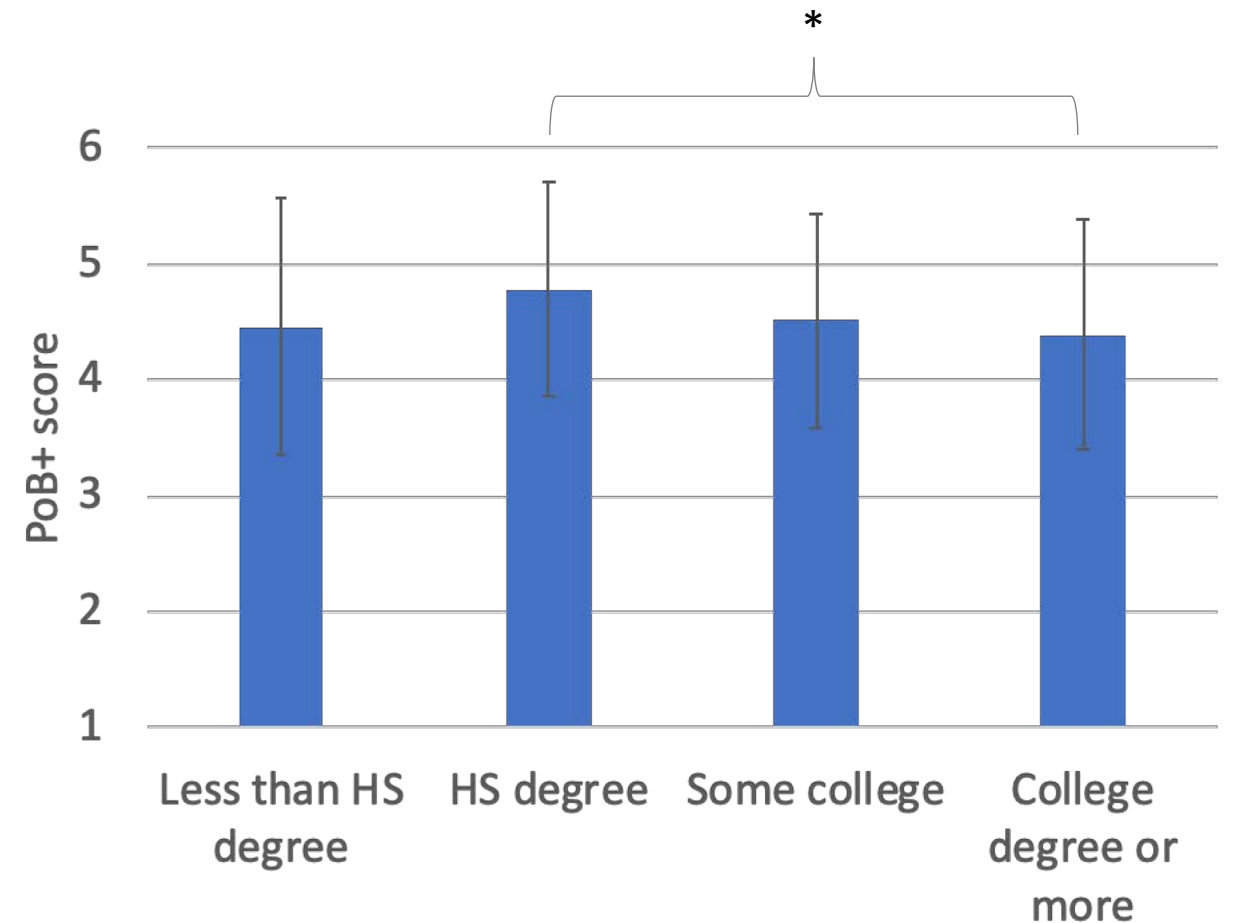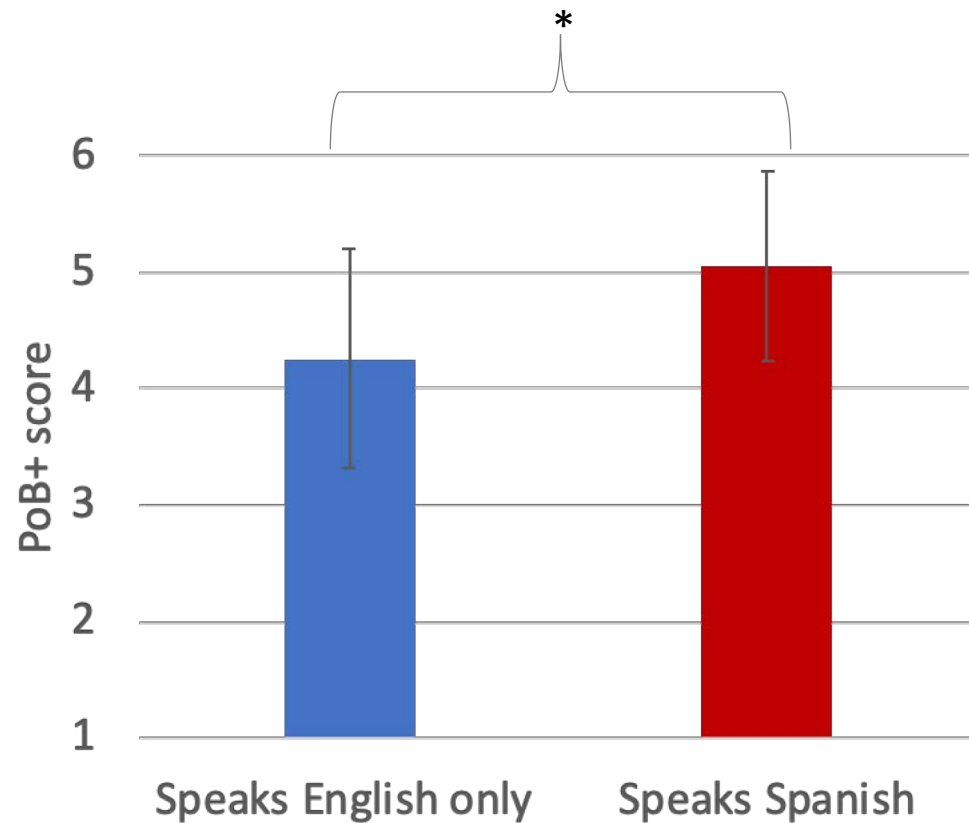
Entering the DL lottery as a function of language background and PoB+ score

	Model 1		Model 2		Model 3	
	b	S.E.	b	S.E.	b	S.E.
Speaks only English	-2.382***	(0.296)	-1.908***	(0.314)	-6.595***	(1.877)
Caregiver Education	0.138	(0.087)	0.104	(0.090)	0.109	(0.091)
Child has IEP	-0.947	(0.521)	-0.811	(0.524)	-0.830	(0.528)
PoB+ score			0.701***	(0.181)	0.310	(0.215)
English x PoB+					0.944*	(0.370)
Constant	-0.248	(0.233)	-3.770***	(0.954)	-1.771	(1.106)
Model χ2	92.28		110.1		116.9	
Pseudo R2	0.194		0.231		0.245	
n	436		436		436	

* p<.05, ** p<.01, ***p<.001

Link to odds ratios

The probability of entering DL lottery as a function of language background and PoB+ score

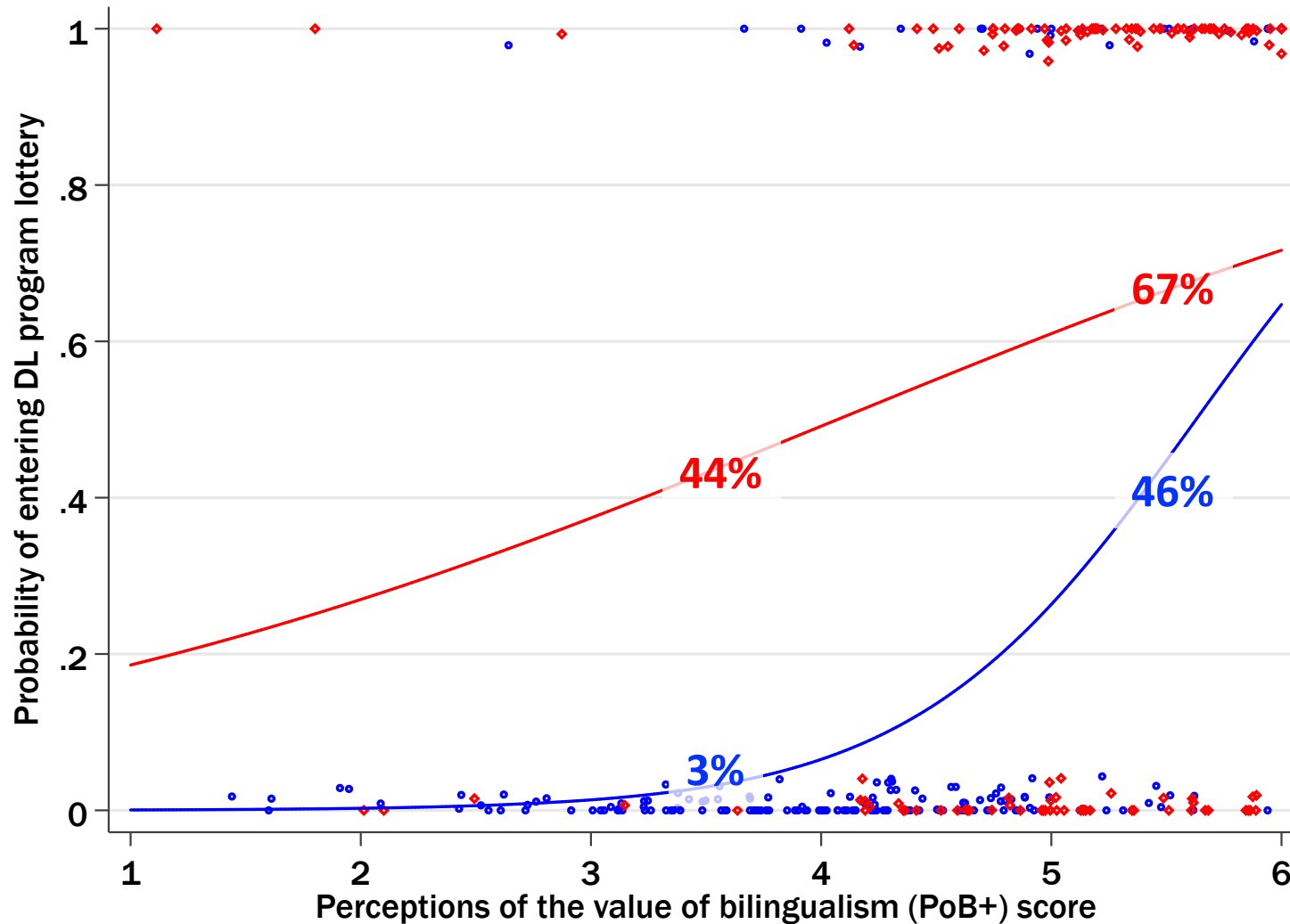A prototypical Spanish-speaker with a PoB+ score $\pm 1\ SD$ from the mean.

A prototypical English-only speaker with a PoB+ score $\pm 1\ SD$ from the mean.

*for caregivers with HS degree and child without IEP

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Reasons given for *not* entering DL lottery

- Caregivers were invited to write in the reason for their decision.

- A small number (4%, n=14) expressed concern that it would be too difficult or confusing for their child.

- The most frequent reason given was lack of awareness that the program existed.
  - 43% of English-only speakers (n=109)
  - 37% of Spanish speakers (n=30)

- How does this affect our model?

- If perceptions of bilingualism drive this decision, then our results should be the same or stronger for the subset who were aware of their options.

Excluding caregivers who were unaware of DL Program

A prototypical Spanish-speaker with a PoB+ score $\pm 1\ SD$ from the mean.

A prototypical English-only speaker with a PoB+ score $\pm 1\ SD$ from the mean.

*for caregivers with HS degree and child without IEP

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Conclusions

- On average, caregivers in this rural district somewhat agreed or agreed with statements about the value of bilingualism for their child.
  - Spanish-speakers > English-only speakers
  - Similar across levels of education
- Spanish speakers were significantly more likely to enter DL lottery than English-only speakers (49% vs. 9%).
- Controlling for language background, PoB+ scores explained additional variation in likelihood of entering the DL lottery, particularly for English-only speakers.
- When we considered only those who were aware of the DL program, these associations were even stronger.

Limitations and Future Directions

- Caregivers' perceptions were measured *after* decision to enter lottery
  - Experience of placement may have influenced perceptions of bilingualism
  - Next steps include looking at how perceptions shift over time using 2018 data
- The decision to enter the DL program lottery is only one type of language choice (doesn't account for home language usage, travel, etc.)

- Next steps include examining relation between perceptions, home language usage, and child language outcomes cross-sectionally and longitudinally.
- This will allow us to better understand the nested contextual factors shaping children's bilingual development.

Thank you!

Alena Esposito

Gigi Luk

Gladys Aguilar

Alexandra Chen

Dasha Maghooli

So Yeon Shin

www.scholar.harvard.edu/sarahsurrain
sarahsurrain@g.harvard.edu

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Appendices

Excluding caregivers who were unaware of DL Program

	Full Sample		Excluding unaware	
	b	S.E.	b	S.E.
Speaks only English	-6.595***	(1.877)	-7.243***	(2.139)
Caregiver Education	0.109	(0.091)	0.0514	(0.100)
Child has IEP	-0.830	(0.528)	-0.560	(0.584)
PoB+ score	0.310	(0.215)	0.481*	(0.236)
English x PoB+	0.944*	(0.370)	1.154**	(0.428)
Constant	-1.771	(1.106)	-2.060	(1.202)
Model χ2	116.9		107.4	
Pseudo R2	0.245		0.279	
n	436		299	

* p<.05, ** p<.01, ***p<.001

PoB+ Item-Score Histograms and Score Histogram

Link to PoB+ scale properties
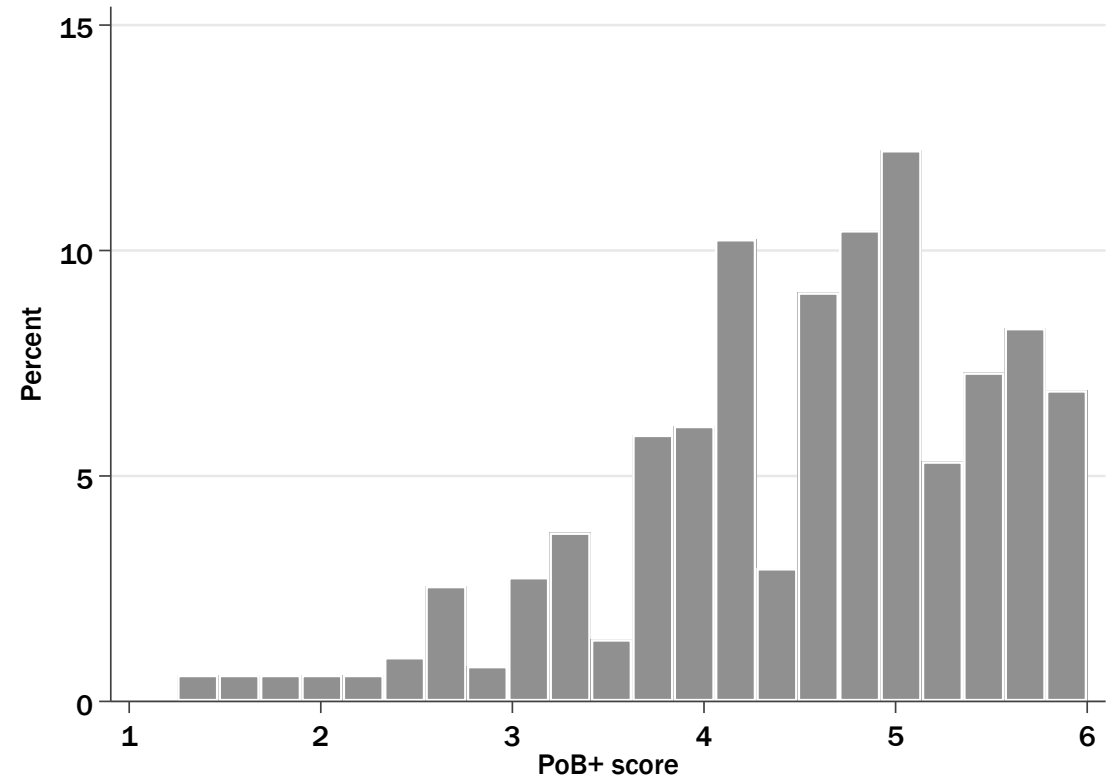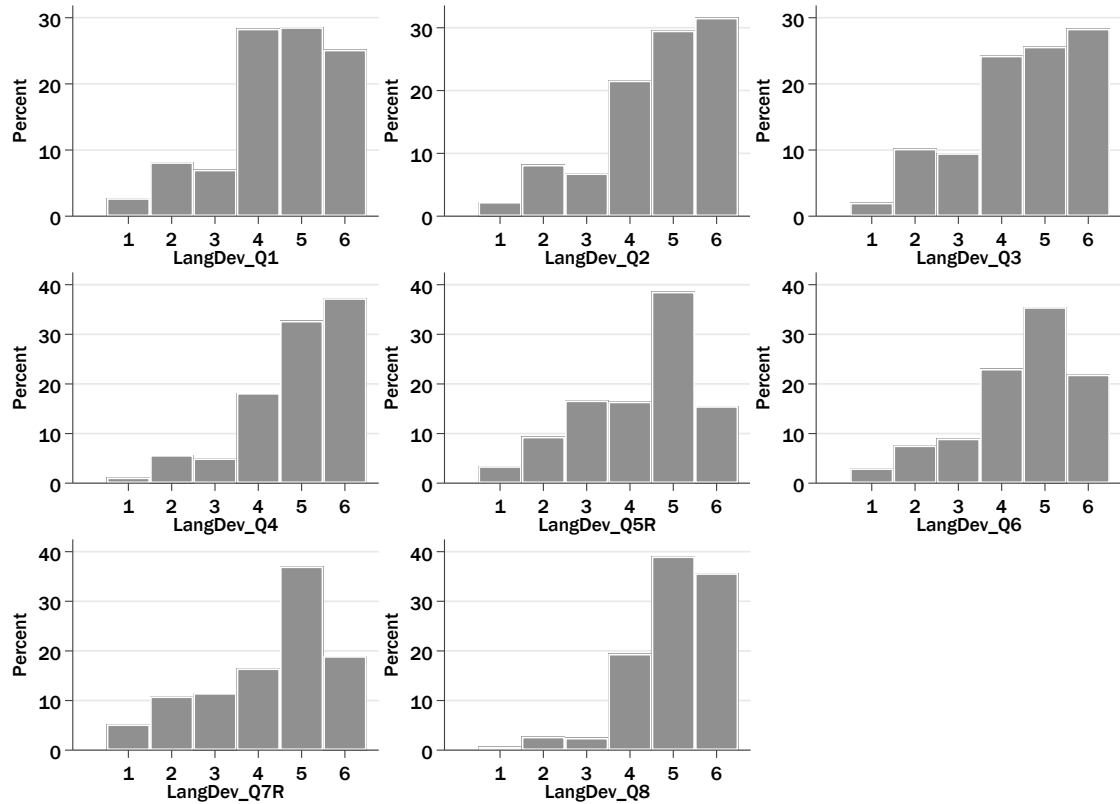
PoB+ Factor Analysis

8-item PoB+ Scree Plot
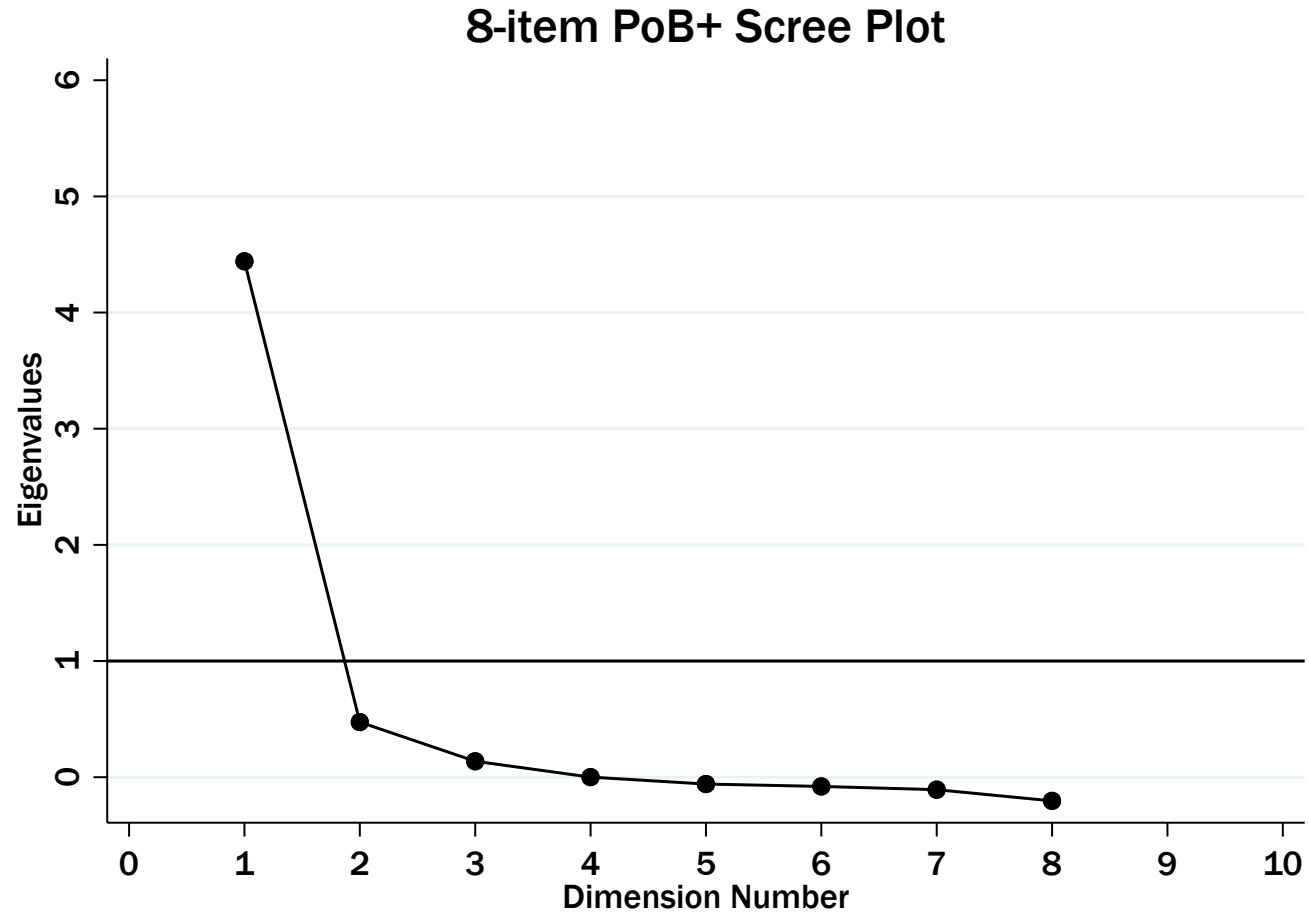
Analysis Plan

- Bivariate associations
  - Entering DL lottery by caregiver language and education background
  - PoB+ scores by caregiver language and education background

- Multivariate models
  - The probability of entering DL lottery as a function of caregiver language background and PoB+ score

- Sensitivity Check
  - What if we exclude caregivers who were unaware of program?

Item Correlations

	Entered DL Lottery	1	2	3	4	5	6	7
1. It is important for my child to SPEAK more than one language.	0.31	1.00						
2. Speaking more than one language will help my child succeed in school in the long term.	0.31	0.79	1.00					
3. It is important for my child to learn to READ and WRITE more than one language.	0.37	0.85	0.84	1.00				
4. Speaking more than one language will help my child compete in the job market.	0.25	0.69	0.70	0.71	1.00			
5. My child will be confused if he or she learns two languages at the same time. (Reversed)	0.14	0.28	0.25	0.24	0.27	1.00		
6. Speaking more than one language will help my child become a stronger thinker.	0.25	0.61	0.67	0.64	0.66	0.20	1.00	
7. To be successful, the ONLY language my child needs to speak well is English. (reversed)	0.20	0.45	0.42	0.45	0.39	0.49	0.35	1.00
8. Speaking more than one language will help my child understand people from different cultural backgrounds.	0.21	0.57	0.54	0.59	0.56	0.27	0.57	0.36

Note: All correlations are significant at the p < .01 level

Correlation Matrix

	1	2	3	4	5
1. Entered DL Lottery	1				
2. PoB+ score	0.34***	1			
3. Speaks only English	-0.39***	-0.45	1		
4. Caregiver education	-0.07	-0.12*	0.39***	1	
5. Child has IEP	-0.07	-0.14**	0.14**	0.09	1

The odds of entering DL lottery as a function of language background and PoB+ score

	Model 1		Model 2		Model 3	
	b	S.E.	b	S.E.	b	S.E.
Speaks only English	0.092***	(0.027)	0.148***	(0.047)	0.001***	(0.003)
Caregiver Education	1.148	(0.010)	1.109	(0.100)	1.115	(0.101)
Child has IEP	0.388	(0.202)	0.444	(0.233)	0.436	(0.230)
PoB+ score			2.016***	(0.365)	1.363	(0.292)
English x PoB+					2.571*	(0.950)
Constant	0.092***	(0.027)	0.148***	(0.047)	0.001***	(0.003)
Model χ2	92.28		110.1		116.9	
Pseudo R2	0.194		0.231		0.245	
n	436		436		436	

* p<.05, ** p<.01, ***p<.001

Excluding caregivers who were unaware of DL Program (odds ratios)

	Full Sample		Excluding unaware	
	b	S.E.	b	S.E.
Speaks only English	0.001***	(0.003)	0.001***	(0.002)
Caregiver Education	1.115	(0.101)	1.053	(0.105)
Child has IEP	0.436	(0.230)	0.571	(0.333)
PoB+ score	1.363	(0.292)	1.617*	(0.383)
English x PoB+	2.571*	(0.950)	3.170**	(1.356)
Constant	0.001***	(0.003)	0.001***	(0.002)
Model χ2	116.9		107.4	
Pseudo R2	0.245		0.279	
n	436		299	

* p<.05, ** p<.01, ***p<.001

Excluding caregivers who were unaware of DL Program (log odds)

	Model 1		Model 2		Model 3	
	b	S.E.	b	S.E.	b	S.E.
Speaks only English	-2.246***	(0.321)	-1.581***	(0.348)	-7.243***	(2.139)
Caregiver Education	0.0872	(0.091)	0.0404	(0.098)	0.0514	(0.100)
Child has IEP	-0.736	(0.553)	-0.621	(0.577)	-0.560	(0.584)
PoB+ score			0.960***	(0.206)	0.481*	(0.236)
English x PoB+					1.154**	(0.428)
Constant	0.299	(0.251)	-4.465***	(1.073)	-2.060	(1.202)
Model χ2	71.32		99.66		107.4	
Pseudo R2	0.185		0.259		0.279	
n	299		299		299	

* p<.05, ** p<.01, ***p<.001

Who applied but was not placed? Questions concerning equitable access to DL program

- Of the 444 families in our analysis, 26 reported that their child applied but did not participate in the DL program.

- These 26 were more than 90% Spanish-speaking caregivers

- 78% identified as Hispanic/Latino

- Of the 22 caregivers who reported their child's strongest language, 12 said this language was English and 7 said this was Spanish.