Minority Language Status, Generation, and the Educational Performance of Immigrant Children

by

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Introduction. Approximately 20 percent of American students under the age of 18 are from immigrant families. Further, 18 percent of the school-aged population speaks a language other than English (Hernandez 2004), up 47 percent from 1990 to 2000 (NCES 2004). The educational achievement of these immigrant students will be central to their labor market success, and the places they attain within the U.S. occupational structure. However, to succeed within the American educational system, they must overcome *at least two* major handicaps. One of these is that since the great majority of recent immigrant families come from less-developed countries, the education and socioeconomic status (SES) of these parents tends to be lower than that of the parents of native students. In particular, immigrant families compose a higher than average proportion of those living in poverty, around 21 percent versus 14 percent for native-born families (Hernandez 2004). Yet SES generally, and poverty specifically, are key indicators of parents' ability to facilitate their children's educational achievement.

The second major handicap experienced by immigrant students is that their parents typically speak a native language other than English. As a consequence, many of these students begin their schooling with an insufficient knowledge of the language in which most schooling is conducted. Importantly, a child's oral language skills have been shown to be strongly predictive of educational performance (Bernstein 1985; Heath 1983; Lonigan, Burgess, and Anthony 2000; Whitehurst and Lonigan 2001), and highly reflective of SES and family background (Alwin and Thornton 1984; Farkas and Beron 2004; Hart and Risley 1995; Hoff 2003).

Background and Significance. Prior research has found that second- and third-generation students have lower academic performance than first generation students. Yet these findings are surprising, since first generation students typically have greater language difficulties to overcome. There has been a substantial amount of research examining the relationship between recency of arrival or generation status and educational achievement, yet whether this relationship is mediated by English language ability remains unanswered because of the dearth of research employing comprehensive language assessment data. Studies finding an "immigrant optimism" effect lack information about students' *actual* oral language skill (Glick and White 2003; Kao and Tienda 1995; Padilla and Gonzalez 2001; Pong et al. 2005; Portes and Rumbaut 2001; Rumbaut 1995; White and Kaufman 1997). Thus, this study will build upon prior research by determining whether generational effects are magnified or reduced by controlling for a child's early English language ability.

We improve upon the previous research in several ways. First, our data, the ECLS-K, are nationally representative, allowing for extrapolation of the results to the entire U.S. population. Second, we examine educational achievement during elementary school, while all prior studies have examined the performance of middle- and high school students. This is important, because prior research has shown that the best predictor of later school performance is early achievement, and so far, we know little about the processes of immigrant adaptation during the early years. Third, our data contain comprehensive English language assessment data. In previous research

concerning immigrant school performance, English ability typically has been operationalized as self-reports of ease with speaking or understanding the language. Or alternatively, it is sometimes measured using a dichotomous indicator of the primary language spoken at home. Instead, we employ a concrete scale of English ability when the child starts school, because importantly, it has been shown that students' early English skills will in many ways determine their trajectory in school (Gershberg et al. 2005; Rumberger and Gandara 2000; Suarez-Orozco and Suarez-Orozco 2001).

Data/Methods. The data for this study come from a nationally representative data set, the Early Childhood Longitudinal Study, Kindergarten cohort (ECLS-K). The outcome variables are the initial English oral language assessment (given to kindergarteners immediately after the start of formal schooling), as well as fifth grade reading, mathematics, and science assessment scores.

From the ECLS-K parent questionnaires, we also obtain information about family SES, family structure and the home environment. The ECLS-K restricted-use files also contain information about the family's current state of residence, and mother and father's country of birth, allowing for identification of specific ethnic groups, such as Mexican, Puerto Rican, Cuban, Chinese, and Asian Indian.

Specifically, we regress kindergarten English oral language ability, as well as fifth grade reading, mathematics, and science IRT scores on generational status (first, second, or third-and-higher generation); ethnicity; region of residence (including dummies for California, Texas, and Florida); family structure; SES; and number of cognitively beneficial resources in the home. Our analyses attempt to discover whether English language skill significantly mediates the generational effect, controlling for demographic background characteristics.

Initial Results. Initial analyses demonstrate that certain ethnic groups are especially linguistically disadvantaged at the beginning of formal schooling. Furthermore, this disadvantage translates into disparate performance in reading, math, and science by the fifth grade. We also find that early English ability accounts for significant variation in reading, math and science achievement, over and above what is accounted for by ethnicity, region, family structure, and SES.

Most importantly, however, Table 1 shows that English ability acts as a strong suppressor on the generational effect found in prior research. Thus, we believe that our analysis provides the best estimate of the immigrant generational effect, giving support to the "immigrant optimism hypothesis" and suggesting that this effect is evident among elementary-aged students.

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Table 1. Regression of Fifth Grade Reading and Mathematics Assessment Scores on Immigrant Generation Status, Early English Oral Language Ability, and Demographic Characteristics

	Reading (IRT scores)		Math (IRT scores)	
Intercept	117.54	98.44	86.06	71.96
Male=1	-4.18***	-3.30**	3.74***	4.54***
Mexican[a]	-21.19***	-3.77^	-16.46***	-4.75*
Puerto Rican	-14.87***	-8.39**	-13.37***	-8.08*
Cuban	-3.60	-1.95	-6.63*	-8.64**
Indian (asian)	9.41**	5.24^	9.31*	6.24^
Chinese	7.37**	6.86**	10.65***	10.48***
Hispanic (not specified)	-14.46***	-2.36	-12.71***	-3.91^
Asian/PI (not specified)	-10.86***	-1.07	-6.11**	1.44
Black/Other minority	-9.47^	-6.84	-11.50*	-8.83
First Generation[b]	3.41	8.77***	4.50*	8.46***
Second Generation	1.45	3.18*	2.46^	3.68**
Texas[c]		2.75		9.98***
California		.07		.61
Florida		5.08^		8.67***
Midwest		2.18		1.86
West		-1.70		-3.17
South		-2.10		2.19
Number of Siblings		-1.08**		-.43
Stepparent(s)[d]		-4.33		-5.25^
Single parent		-.58		-1.48
Nontraditional structure		-18.61*		-18.67**
Socioeconomic status		4.33***		3.30***
Below Poverty Level		.06		.99
Age at Mother's 1st birth		.43**		.38*
# Cognitive resources		.08*		.06^
English Oral Language (IRT)		.44***		.32***

*** p<.001 **p<.01 *p<.05 ^p<.10

Note. Also includes controls for age at assessment. Analyses are run in STATA using methods that adjust for sample clustering within schools and allow for multiple imputation of missing data.

[a] Ref group is White, non-Hispanic.

[b] Ref group is third or higher generation.

[c] Ref group is Northeast.

[d] Ref group is two parents.