Brief Report

Pathways to Linguistic Isolation Among Older U.S. Immigrants: Assessing the Role of Living Arrangements and English Proficiency

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Abstract

Objectives: To identify diverse pathways to linguistic isolation (LI) and explain the differences in LI for older immigrants from different countries.

Method: A demographic decomposition of LI was applied to 18 largest origin subgroups of foreign-born, ages 65 and older, in the 2010–2014 American Community Survey data.

Results: LI varied from 12% for older Indians to 68% for older Ukrainians. Decomposition analysis identified 3 components: (a) Limited English proficiency (LEP); (b) Solitary living; and (c) Limited English of co-resident others. The relative contribution of components differed by country of origin, pointing to different pathways to LI. Older Mexicans have the highest LEP, but moderate LI due to infrequent solitary living and the English proficiency of co-resident others. Many Chinese and Vietnamese older adults are LI because they live with other LEP adults. Older Europeans’ common pathway to LI is solitary living.

Discussion: Components of LI in ethnic communities can inform communication strategies for older LEP lacking access to critical information.

Keywords: English language proficiency, Foreign born, Immigrants, Linguistic isolation, Living arrangements

Over half of older foreign-born adults do not speak English “very well” and are classified by the U.S. Census Bureau as Limited English Proficient (LEP) (Batalova, 2012; Gambino, Acosta, & Grieco, 2014; LEP.gov, n.d.). LEP bodes poorly for health (Kim et al., 2011; Ponce, Hays, & Cunningham, 2006), healthcare access (Derose, Escarce, & Lurie, 2007), income (Mora & Dávila, 2011), and non-kin social networks (Diwan, 2008). English is critical for communicating with emergency services and following instructions in disasters (Meischke, Chavez, Bradley, Rea, & Eisenberg, 2010). Linguistic disadvantage is exacerbated when translators are unavailable, which led researchers to introduce the concept of “linguistic isolation” (LI). LEP persons in households where no adult speaks English very well are considered LI (Siegel, Martin, & Bruno, 2001). LI is associated with socio-economic disadvantage and poorer well-being (Derose et al., 2007; Kuebler & Rugh, 2013; Mora & Dávila, 2011), but few studies focus on predictors (Lestina, 2003; Siegel et al., 2001), much less explain LI differences among immigrant subgroups.

Differences in LI are often assumed to be a function of English proficiency. Immigrants from countries where English is an official language (Canada, India, Philippines) have predictably low LEP and LI (Gambino et al., 2014). But LI also depends on living arrangements, which vary due to kin availability, economic constraints, and cultural
norms (Glick & Van Hook, 2002; Wilmoth, 2001). Some LEP older adults are protected from LI as they live with English proficient adults. In other words, older immigrants become LI through different pathways. Identifying these pathways through the novel application of demographic decomposition methods helps explain the differences in LI among older immigrants.

**Components of LI**

LI is measured by an English language proficiency question. If speaking a language other than English at home was reported, the American Community Survey followed up by asking: *How well does this person speak English?* (“very well,” “well,” “not well,” or “not at all”). By convention (Gambino et al., 2014; Vickstrom, Shin, Collazo, & Bauman, 2015), an individual not speaking English “very well” is defined as having “limited English proficiency” (LEP). A household and all its members are classified as linguistically isolated if no member, 14 or older, speaks English “very well” (Siegel et al., 2001).

Directly comparing LI across subgroups confounds effects of the size of the population “at risk” of LI (i.e., the LEP) with the prevalence of LI for this “at risk” population. Among the LEP, the distinction between living alone and with others is fundamental. By definition, all LEP living alone are LI. LEP who live with others, however, may or may not be LI, depending on who they live with. The larger the household, the greater the odds that it contains at least one adult speaking English “very well” (Burr & Mutchler, 2003). Co-residence with adult children—a common arrangement for older immigrants (Glick & Van Hook, 2002; Wilmoth, 2001)—likely protects older LEP persons from LI.

Origin groups differ not only in English proficiency (Gambino, Acosta, & Grieco, 2014), but also in patterns of living arrangements in later life (Gurak & Kritz, 2010; Wilmoth, 2001). A demographic decomposition method highlights pathways to LI by evaluating relative contribution of LEP, solitary living, and co-resident English speakers (Figure 1).

**Data and Method**

The 2010–2014 American Community Survey Integrated Public Use Microdata Series (Ruggles et al., 2010) offers a representative sample of older immigrants in the United States. Our analytic sample was non-institutionalized, foreign-born adults, age 65 or older (N = 162,117). We analyzed LI for 18 country-of-birth subgroups with sufficient sample size (N > 3,000) to support stratifying by LEP and living arrangements: China, Colombia, Cuba, Dominican Republic, El Salvador, Greece, Haiti, India, Iran, Italy, Japan, Mexico, The Philippines, Poland, Russia, South Korea, Ukraine, and Vietnam (Older adults born in Canada are excluded from the subgroup analysis because 95% are proficient in English.). These subgroups accounted for more than half of older immigrants. Older immigrants from other countries were included in the “all foreign-born” group to show the average pattern.

We calculated LI for each subgroup as the percentage of older foreign-born living in LI households. These LI rates were the product of two components: (a) percent of older foreign-born “at risk” of LI due to LEP and (b) proportion LI among older LEP:

$$LI = LEP \times LI_{LEP} \hspace{1cm} (1)$$

We calculated LI components for the pooled sample and, for each country-of-origin group. Following Gupta (1978, 1991), we estimated each component’s contribution to the observed difference in LI between an origin subgroup and India, the subgroup with the lowest LI. Because all LEP living alone were LI, the LI among LEP is expressed as:

$$LI_{LEP} = LI_{LEP \text{ live alone}} + LI_{\text{of LEP live with others}} \hspace{1cm} (2)$$

Thus, LI among LEP was decomposed into the parts due to LEP living alone and to LI among LEP living with others.

**Results**

Table 1 ordered LI from high (Ukraine 68%) to low (India 12%). On average, 38% of older foreign-born were LI whereas 71% were LEP. LEP ranged from 88% for Vietnam to 46% for The Philippines. High LI countries generally had high LEP.

Figure 2’s best fitting line illustrated a hypothetical perfect linear relationship between LI and LEP. A country’s distance from the line captured the extent that other factors influenced LI observed over LI expected. Russians and Ukrainians are high on the LEP axis, but had even higher LI than expected given English proficiency alone. For Mexicans, Salvadorians, Haitians, and Indians, LI is lower than expected given LEP. As Table 1 confirms, LI depends on living arrangements that vary by country of origin. LI for Indians was low (12%), in part, because virtually all LEP Indians lived with others; only 3% lived alone. Ukrainian LI was high (68%), in part, because 33% of LEP Ukrainians lived alone.

**Figure 1.** Pathways to Linguistic Isolation: Foreign-born, age 65+. Source: 2010–2014 American Community Survey.
<table>
<thead>
<tr>
<th>Country of birth</th>
<th>LI (A = B x C)</th>
<th>LEP (B)</th>
<th>LI among LEP (C = D + E)</th>
<th>LI for LEP who live alone (D)</th>
<th>LI for LEP who live with others (E)</th>
<th>Excess LI over India Due to B</th>
<th>Due to D</th>
<th>Due to E</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukraine</td>
<td>68.0</td>
<td>80.6</td>
<td>84.4</td>
<td>33.2</td>
<td>51.2</td>
<td>0.562</td>
<td>0.179</td>
<td>0.151</td>
<td>0.233</td>
</tr>
<tr>
<td>Russia</td>
<td>61.8</td>
<td>78.6</td>
<td>78.6</td>
<td>33.5</td>
<td>45.1</td>
<td>0.500</td>
<td>0.159</td>
<td>0.145</td>
<td>0.195</td>
</tr>
<tr>
<td>Korea</td>
<td>52.1</td>
<td>78.9</td>
<td>66.0</td>
<td>18.5</td>
<td>47.5</td>
<td>0.403</td>
<td>0.141</td>
<td>0.073</td>
<td>0.188</td>
</tr>
<tr>
<td>Vietnam</td>
<td>51.4</td>
<td>88.0</td>
<td>58.4</td>
<td>9.4</td>
<td>49.0</td>
<td>0.396</td>
<td>0.167</td>
<td>0.037</td>
<td>0.192</td>
</tr>
<tr>
<td>China</td>
<td>50.2</td>
<td>80.9</td>
<td>62.0</td>
<td>14.2</td>
<td>47.8</td>
<td>0.384</td>
<td>0.144</td>
<td>0.055</td>
<td>0.185</td>
</tr>
<tr>
<td>Cuba</td>
<td>49.2</td>
<td>76.3</td>
<td>64.5</td>
<td>20.5</td>
<td>44.0</td>
<td>0.374</td>
<td>0.127</td>
<td>0.079</td>
<td>0.168</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>46.0</td>
<td>84.2</td>
<td>54.6</td>
<td>20.7</td>
<td>33.9</td>
<td>0.342</td>
<td>0.144</td>
<td>0.075</td>
<td>0.122</td>
</tr>
<tr>
<td>Iran</td>
<td>42.0</td>
<td>70.6</td>
<td>59.5</td>
<td>19.4</td>
<td>40.1</td>
<td>0.302</td>
<td>0.096</td>
<td>0.067</td>
<td>0.139</td>
</tr>
<tr>
<td>Colombia</td>
<td>40.2</td>
<td>74.8</td>
<td>53.8</td>
<td>15.5</td>
<td>38.3</td>
<td>0.284</td>
<td>0.106</td>
<td>0.051</td>
<td>0.127</td>
</tr>
<tr>
<td>El Salvador</td>
<td>38.3</td>
<td>84.8</td>
<td>45.2</td>
<td>10.5</td>
<td>34.6</td>
<td>0.265</td>
<td>0.129</td>
<td>0.032</td>
<td>0.104</td>
</tr>
<tr>
<td>Mexico</td>
<td>38.1</td>
<td>82.9</td>
<td>45.9</td>
<td>11.2</td>
<td>34.8</td>
<td>0.263</td>
<td>0.124</td>
<td>0.034</td>
<td>0.105</td>
</tr>
<tr>
<td>Poland</td>
<td>33.0</td>
<td>51.8</td>
<td>63.8</td>
<td>27.4</td>
<td>36.3</td>
<td>0.212</td>
<td>0.018</td>
<td>0.084</td>
<td>0.111</td>
</tr>
<tr>
<td>Haiti</td>
<td>30.5</td>
<td>74.4</td>
<td>40.9</td>
<td>13.7</td>
<td>27.3</td>
<td>0.187</td>
<td>0.087</td>
<td>0.033</td>
<td>0.066</td>
</tr>
<tr>
<td>Greece</td>
<td>30.2</td>
<td>56.1</td>
<td>53.7</td>
<td>20.3</td>
<td>33.5</td>
<td>0.184</td>
<td>0.033</td>
<td>0.057</td>
<td>0.094</td>
</tr>
<tr>
<td>Italy</td>
<td>27.3</td>
<td>46.9</td>
<td>58.2</td>
<td>21.7</td>
<td>36.5</td>
<td>0.155</td>
<td>−0.004</td>
<td>0.059</td>
<td>0.099</td>
</tr>
<tr>
<td>Japan</td>
<td>26.3</td>
<td>52.0</td>
<td>50.6</td>
<td>29.4</td>
<td>21.1</td>
<td>0.145</td>
<td>0.016</td>
<td>0.075</td>
<td>0.054</td>
</tr>
<tr>
<td>Philippines</td>
<td>14.3</td>
<td>45.7</td>
<td>31.3</td>
<td>6.1</td>
<td>25.2</td>
<td>0.025</td>
<td>−0.006</td>
<td>0.006</td>
<td>0.025</td>
</tr>
<tr>
<td>India</td>
<td>11.8</td>
<td>47.8</td>
<td>24.7</td>
<td>3.2</td>
<td>21.5</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>All foreign-born</td>
<td>37.7</td>
<td>71.3</td>
<td>52.9</td>
<td>15.0</td>
<td>37.9</td>
<td>0.259</td>
<td>0.091</td>
<td>0.048</td>
<td>0.120</td>
</tr>
</tbody>
</table>

Notes: LEP = Limited English Proficient.

 Differences from baseline and decomposition are presented in proportions to differentiate from percentages for descriptive statistics. Not limited to those born in the 18 countries; includes all foreign-born 65+ in the data.

We used India, the group with the lowest LI, as our baseline for country of origin comparisons. Decomposing each subgroup’s “excess LI” yields three components: (a) Limited English or excess LI due to LEP of older immigrants; (b) Solitary living or excess LI due to older LEP living alone; and (c) Limited English of co-resident others or excess LI due to LI among LEP with others (Table 1). On average, subgroup differences in LI protection afforded by living with English-speakers made the largest (0.120 or 46% of the difference [The contribution of each component can be converted into percentages, e.g., 0.120/0.259*100 = 46%]) contribution to LI. Differences in prevalence of solitary living made the smallest (0.048 or 19%). Older immigrants’ limited English fell in between (0.091 or 35%).

Relative importance of the components for different subgroups demonstrated diverse pathways to LI. Figure 3 provided a visual summary of the components of LI from Table 1.

Like Russians, Ukrainians’ high excess LI reflected contributions of all three components—limited English (32%), solitary living (27%), and co-residents’ limited English (41%). Another high LI subgroup was Koreans. But only 18% of its LI excess was due to solitary living; 35% was due to own LEP; and 47% due to living with non-English-proficient others. Similar to Koreans, older Chinese and Vietnamese excess LI was primarily due to high LEP and limited English of co-resident others. High LEP dominated other components for most Western Hemisphere origins, including Dominicans (42% due to LEP), Salvadorians (49%), Mexicans (47%), and Haitians (47%). In contrast, modest excess LI of the Japanese and Europeans (Poles, Greeks, Italians) vis-a-vis the Indians was largely due to high solitary living.

Robustness Checks
To assess whether results were sensitive to LI definition, we replicated analyses with LEP defined as speaking English less than “well” rather than “very well” (results available on request). Unsurprisingly, this lowered LI rates by 5%–18%, depending on the group (9%, on average) due to lower LEP rates (22%, on average). However, LEP definition only slightly affected relative subgroup differences. Decomposition analysis showed a stronger contribution from LEP with its share typically higher by 6%–8%. Notable exceptions were Greeks, Italians, Japanese, and Filipinos. Under the less restrictive LEP definition, solitary living played an even stronger role in predicting LI for these immigrants. The country of origin differences in LI are not affected by the demographic composition—for every subgroup, age and sex standardized LI and LEP rates differ from the unstandardized rates by less than 1%.

Conclusion and Discussion
LI contributes to social isolation, increases depression among older adults and restricts access to important information and services (e.g., Diwan, 2008; Meischke et al., 2010; Nawyn, Gjokaj, Agbényiga, & Grace, 2012). The application of demographic decomposition made several contributions to our understanding of the pathways to LI among older immigrants. First, it underscored that LEP is a necessary, but not sufficient, cause of LI. LEP defines the population “at risk,” but the LI of the older foreign-born also reflects whether they live alone or with others, and whether other household members are proficient in English. Only the LEP can be LI, but all LEP who live alone are LI. Living alone is a sufficient condition for LEP older adults to be LI. Understanding individual-level differences in LI demands multi-stage modeling that accounts for both LEP and selection into certain living arrangements—especially living alone—by LEP older immigrants.

Second, the article revealed diversity by national origin in levels and pathways to LI. Diverse pathways are built on kin availability, economic limitations, and cultural preferences underpinning household formation. Consider Mexicans, the largest older immigrant subgroup with the lowest English proficiency. Available kin from sustained migration and U.S. settlement, income constraints, and family-oriented culture promote multigenerational households that protect older Mexican adults from LI (Burr &
Mutchler, 2003; Glick & Van Hook, 2002). Solitary living is a common pathway to LI among older immigrants from Russia, Ukraine, Poland, and Greece—European countries where co-residence is less common than in Asia or Latin America. Despite their low propensity to live alone, many older LEP Vietnamese or Chinese are LI because of the limited English of co-resident others. Thus, the living arrangements of older immigrants are key to understanding the differences in LI among the immigrant subgroups. In fact, apart from English proficiency, individual-level characteristics (e.g., socio-economic status) are important for LI only to the degree that they predict who older LEP immigrants live with.

Finally, the variations in LI among the older LEP who live with others underscore the importance of multi-person household type. Additional analyses (available on request) showed that differences are primarily due to propensity to live with a spouse only or with adult children. Older LEP immigrants tend to be married to other older LEP immigrants (often from the same country of origin). Thus, couple-only households do not mitigate LI to the same degree as multigenerational households with younger adults who speak English very well. Furthermore, the LI rates among older LEP immigrants in co-resident households are strongly correlated with LEP rates of adult immigrants from the same country. Consequently, some subgroup differences in LI could be linked to intermarriage rates and English proficiency of adult immigrants. Future research should explore these factors.

The distribution and components of LI among populations can inform communication strategies and targeted interventions. For immigrant origin groups where LEP in later life is offset by co-residence with younger kin, family members present valuable intermediaries for transmitting information. For groups with high LI due to solitary living, it may be necessary to translate important information or identify English proficient co-ethnics as information conduits. Importantly, LI of older immigrants, especially those who live with others, can be reduced indirectly by improving English proficiency of middle aged and younger immigrants.

Future research should examine whether LI implications for health and wellbeing depend on the pathway. For example, LI older adults who live alone may be more socially isolated than those who live with others. Even if co-resident others do not speak English very well, they may still provide psychological, social, and instrumental support. LI older adults who live alone may be especially disadvantaged and in need of programs such as free English classes and bilingual support services.

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**Conflict of Interest**

None reported.

**References**


