Explaining a High School’s Likelihood of Offering World Languages

Background
In 2007 the Mapping and Enhancing Language Learning (MELL) project surveyed high schools online and by phone on whether or not they offered world languages and if so, which languages were offered. A range of schools reported offering two or more world languages or more than four years of the same language. We were interested in whether certain factors might play a role in predicting opportunities in Washington state for students to learn a world language. The variables we considered were:

- School size (total enrollment)
- Urbanicity (proximity to a large urban area like Seattle)
- School demographic composition (race/ethnicity or socioeconomic status)

1. What factors predict that a high school will offer any world language courses?
School size matters: the larger the high school, the more likely it is to offer world languages. Location matters: compared to large cities (i.e., Seattle), schools located in the urban fringe of a large city (e.g., Auburn) are significantly less likely to offer world languages. However, schools located in rural areas (e.g., Chewelah) are significantly more likely to offer world languages than are high schools located in large cities. Finally, race/ethnicity matters: for each increase in the percent of non-white, non-Asian/Pacific Islander students in a school, the odds of offering a world language decrease slightly, but significantly.

2. What factors predict the total number of languages a school offers?
School size predicts the total number of languages a high school will offer: the larger the school, the more languages it is likely to offer. Race/ethnicity also matters: an increase in the number of Hispanic students enrolled in a school correlates with a decrease in the total number of languages offered.

3. What factors predict how many languages a school offers for at least two years?
School size matters: the larger the school, the more languages it is likely to offer for at least two years. Race/ethnicity also matters: an increase in the number of Hispanic students enrolled in a school correlates with a decrease in the number of languages offered for at least two years.

4. What factors predict how many languages a school offers for at least four years?
The number of world languages that a high school offers for at least four years is best predicted by school size, race/ethnicity, and socioeconomic status. The larger the school, the more languages it will offer for at least four years. The higher the percentage of Asian/Pacific Islander students at a school, the more likely the school is to offer languages for at least four years. Finally, the higher the number of students who are eligible for free or reduced lunch, the fewer the number of languages it will offer for at least four years.

Data Analysis Method: The MELL Survey Data from 2007 were merged with Washington State Office of Superintendent of Public Instruction (OSPI) demographic data and data on urbanicity from the National Center of Educational Statistics Common Core of Data with the goal of identifying the variables that influence a school’s likelihood of offering world languages. The sample included 370 schools out of 463 Washington public high schools, a response rate of 80%. Using logistic regression methods, we analyzed the likelihood that high schools would offer world languages. In addition, we used poisson and negative binomial regression models to identify the variables that significantly affect the total number of world languages a school offers, the number it offers for at least two years, and the number it offers for at least four years. For a detailed report of the statistical analysis, contact mellwa@u.washington.edu.
5. What factors predict which languages a school will offer?
For all languages, total enrollment is the major predicting factor, but for Spanish, French, and American Sign Language (ASL), school size is the only factor that significantly affects the offering of these languages. For Japanese, urbanicity is also a factor in that districts outside of Seattle are less likely to offer Japanese and small, rural districts are significantly less likely. Urbanicity is also a factor for Latin and Russian, where urban fringe schools (like Federal Way, Edmonds, and Everett) are significantly less likely to offer Latin or Russian. Race/ethnicity is sometimes a factor: the odds of offering Chinese increase as the percentage of Asian/Pacific Islander students in the school increases, while the odds of offering German decrease with each increase in the percentage of non-white students.

6. Which languages are most likely to be offered at least two years or four or more years?
Most world languages, if offered at all, are offered for at least two years. However, Spanish, the most popular language, is less likely to be offered four or more years than are the other major world languages taught in the state: French, German, and Japanese. (see table and graph to right)

<table>
<thead>
<tr>
<th>Language</th>
<th>Total Count*</th>
<th>At Least 2 Years</th>
<th>At Least 4 Years</th>
<th>% At least 2 Years</th>
<th>% At least 4 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>264</td>
<td>256</td>
<td>145</td>
<td>97%</td>
<td>55%</td>
</tr>
<tr>
<td>French</td>
<td>151</td>
<td>148</td>
<td>102</td>
<td>98%</td>
<td>68%</td>
</tr>
<tr>
<td>German</td>
<td>77</td>
<td>76</td>
<td>50</td>
<td>99%</td>
<td>65%</td>
</tr>
<tr>
<td>Japanese</td>
<td>67</td>
<td>65</td>
<td>43</td>
<td>97%</td>
<td>64%</td>
</tr>
<tr>
<td>ASL</td>
<td>65</td>
<td>60</td>
<td>20</td>
<td>92%</td>
<td>31%</td>
</tr>
<tr>
<td>Chinese</td>
<td>15</td>
<td>12</td>
<td>5</td>
<td>80%</td>
<td>33%</td>
</tr>
<tr>
<td>Russian</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>80%</td>
<td>60%</td>
</tr>
<tr>
<td>Latin</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>71%</td>
<td>43%</td>
</tr>
</tbody>
</table>

*Total Count of schools that reported offering each language

What languages are offered at least two or four years?

Implications for Future Study

Based on this preliminary analysis of 2007 data, school size, i.e. total enrollment, appears to be the most important factor predicting the likelihood that a high school would offer world languages. Despite the enormous effect of school size in predicting language offerings, location and demographic variables also affected the likelihood that schools would offer world languages and which languages would be offered.

While this is only a snapshot in time, with new waves of data we will be able to offer a longitudinal picture of world language offerings and to gauge more accurately the factors that contribute to an equitable distribution of world language programs across our state.

The Mapping and Enhancing Language Learning (MELL) project was initiated in 2006 by four National Resource Centers at the University of Washington’s Jackson School of International Studies, which received funding through the U.S. Department of Education’s Title VI program to launch a four-year project to collect data on world language learning and teaching in Washington K-12 schools. The Center for Global Studies, Center for West European Studies (CWES), East Asia Center (EAC), and the Ellison Center for Russian, East European and Central Asian Studies (REECAS) are working with the UW Language Learning Center, Washington State Office of Superintendent of Public Instruction (OSPI), Washington State Coalition for International Education, and Washington Association for Language Teaching (WAFLT) to establish an understanding of world language teaching trends in Washington state. With funding from the Title VI program grants and a State Innovations grant from Longview Foundation, the MELL project is creating a series of policy briefs based on the data collected through the MELL surveys of schools. For further information, call the Language Learning Center at 206.543.0563 or email mellwa@u.washington.edu. Web: depts.washington.edu/mellwa