AT A LOSS FOR LANGUAGE: FACTORS DETERMINING WORLD LANGUAGE INSTRUCTION IN WASHINGTON'S HIGH SCHOOLS

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A paper prepared for presentation at the annual meeting of the
American Educational Research Association, San Diego, April 2009.

Research on this paper was supported by a U.S. Department of Education grant to the University of Washington's Jackson School of International Studies. Findings and conclusions are those of the author and do not necessarily reflect the views of the supporting agency.

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ABSTRACT

Education in world languages, in addition to being required for entry into a four year college in Washington State, is more important in today's global economy than ever before. Yet we know little about the state of world language instruction in today's public high schools. Using data collected by the Mapping and Enhancing Language Learning (MELL) survey project I use a mixed methods approach to describe and analyze the current state of world language instruction in Washington's public high schools. I find that world language offerings are stratified by a school's racial and socioeconomic composition, as well as by their size and type. Implications for public policy and students' college and job preparedness are discussed.

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Objectives

The first objective of this research is to provide researchers and policymakers with an accurate description of the world language offerings in Washington State's high schools. Using these data, the second objective is to offer explanations as to why some of the state's high schools do not offer world language courses. Finally, the third objective is to identify factors that increase the likelihood that a high school will offer world languages, paying particular attention to the role that a school's demographics, locale, and size play.

Theoretical Framework

There are many reasons why world language learning is vital to the education of contemporary high school students. The two that I focus on in this paper are the need for multilingualism and the cultural understanding that accompanies it in a globalizing economy and the role that world language courses play in a student's college readiness. In the next fifteen years the National Intelligence Council (2008) predicts significant global changes, including a shift in the international political system with an unprecedented transfer of wealth and power from the West to the East, as well as an increased potential for global conflict, especially in the Middle East. Multilingualism and cultural understanding are vital for both political and economic survival in this new world. Yet while over half of all European citizens are fluent in a second language, only nine percent of Americans are fluent in a language in addition to their native language (Senate Resolution 28, 2005). If Americans are going to compete in a rapidly changing world, then it is imperative that future generations are equipped with the skills to

communicate in this new world. World language learning in high school and earlier is tantamount to the success of future generations. The first research question then follows what is the state of world language teaching in today's public high schools?

World languages also contribute to a student's level of college preparedness. Four year colleges and universities in Washington State require a minimum of two years of world language credits for admission, a requirement that is shared by most four year colleges and universities in other states. In fact, some universities outside of Washington state are now requiring a minimum of three years of a language for admission. Part of assuring equal access to a college education then requires that students have access to world language courses in their high schools. We know that not all schools are created equal and that schools' resources tend to be stratified by characteristics such as race and socioeconomic status (Darling-Hammond 2007). Indeed school funding varies wildly in the United States with the wealthiest 10% of school districts investing almost 10 times more in their schools than the poorest 10% (Kozol 2005). Recent research has shown that schools with a majority of white students have significantly greater resources (i.e. curriculum offerings, qualified teachers) than those that predominantly serve students of color (Darling-Hammond 2004). In a study of California schools Oakes (2004) discovered that many high-minority schools do not teach the courses necessary for students to apply to college. The second research question focuses on the equity of world language offerings by high school demographics, locale, and size in Washington State's high schools.

Data

The data used in this study were collected through the University of Washington's Mapping and Enhancing Language Learning (MELL) project. 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.[1]

In 2007 the Mapping and Enhancing Language Learning (MELL) project attempted to survey all Washington high schools online or by phone on whether or not they offered world languages and if so, which languages were offered. Surveys were generally completed by either a school counselor or by a member of the World

[1] For further information, call the Language Learning Center at 206.543.0563 or email mellwa@u.washington.edu. Web: http://depts.washington.edu/mellwa/.

Languages department. These data were then merged with Washington State Office of Superintendent of Public Instruction (OSPI) demographic data (total enrollment, percent Asian, percent American Indian, percent black, percent Hispanic, percent white, and percent eligible for free or reduced lunch) and data from the National Center of Education Statistics Common Core of Data (urbanicity rating) with the goal of identifying the variables that influence a school's likelihood of offering world languages. The final sample included 370 schools out of 463 Washington public high schools, a response rate of 80%.

Methods

I employ a mixed methods research design. Using the MELL survey data I first calculate frequencies to learn which high schools offer world language courses and which do not. I then contacted the person who completed the survey at high schools that do not offer languages by telephone and asked how students are able to meet the world language requirements, why they do not offer world languages and if they plan to begin offering these courses in the future, placing special emphasis on the barriers that prevent them from teaching world languages. I analyze these interview data, coding the answers and compiling them into like categories.

For the second part of the study I use descriptive statistics to provide a landscape of world language teaching in Washington's high schools. I then use logistic regression methods to predict the likelihood that a school offers a particular language and that a school offers at least one language for at least two years and at least one language for at least four years. In addition, I use 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 each model, I use stepwise regression methods, testing model fit using the likelihood ratio test.

Results

Schools That Do Not Offer World Languages

A staggering 19% of the high schools in the MELL survey (71 out of 370) reported not offering world language courses. I was able to reach 62 of these for follow-up interviews by phone. Of the 62 schools reached, 5 reported that the data were incorrect and they did, in fact, offer world languages. The results reported below are the responses of the remaining 57 schools. It is important to note that all of these 57 schools reported being alternative high schools, which helps to explain their responses.

Schools not offering world language courses reported that their students were able to take these courses at the local traditional high school, online or through the Running Start program at the local community college. A representative from only one school responded not knowing how students could take world language classes. An overwhelming majority of the schools (57%) reported that students are able to take world language courses at the nearest traditional high school. For some schools, the traditional high school was literally in the same building, while for other schools, the students were required to provide their own transportation, possibly complicating their ability to take languages if they desired to do so. The second most popular option at 13% was to offer world languages online through such programs as Apex or Red Comet. 11% of schools answered that students were able to take world language courses either at the traditional high school or through the Running Start program at the local community college. This

percentage is slightly greater than the 9% who reported only the Running Start program as a viable option. Finally, a small percentage of schools reported using these three options in other combinations.

When asked if they planned on offering world language courses in the near future, an overwhelming majority (54 out of 57) said no. Of the three schools that said yes, two were planning on adding Spanish and one reported hoping to add Spanish, French, and native language courses. When asked to identify the barriers keeping these schools from offering world languages, most responded that their school was too small or lacked the funding to hire a language teacher. Many indicated that far from being college bound, it was all they could do to keep their students in school. They reported their focus as being on basic skills and dropout prevention rather than on college preparation. Some responded that there was no need to offer world language classes, because they were connected so closely to a traditional high school where students could take these courses. Finally, a few schools indicated that their students were taking English as a Second Language and their top priority was that their students become fluent in English.

Schools That Do Offer World Languages

Figure 1 displays the trends in world language offerings in Washington high schools over time.

<Figure 1>

Spanish is by far the most popular world language offering, followed by French and German, although the state offerings of German have decreased from 2004 to 2007 and

more closely resemble the percentage offerings of Japanese and American Sign Language (ASL). Latin, Chinese, Russian, Arabic, and Native Languages are sparsely offered, if at all.

Table 1 shows the demographic means by world language offerings in Washington State's public high schools.

<Table 1>

Comparing the demographic means to the sample means for the number of world languages schools offer for at least two and four years, it appears that race and socioeconomic compositions of the schools are associated with world language offerings. Specifically, schools with larger Asian and white populations are more likely to offer more languages than schools with larger American Indian, black, or Hispanic populations. The free and reduced lunch eligible proportion of the school is inversely related to number of languages offered. Finally, enrollment also appears to be strongly correlated with the number of languages a school offers, unsurprisingly.

As for the association between a school's demographics and the kinds of languages offered, the patterns look somewhat different. For all languages offered in Washington, the mean Asian population in the school offering is larger than that of the sample mean, with the exception being German. For American Indians the story is startlingly different. The mean American Indian population in all of the schools offering languages is significantly lower than the sample mean. Black students in Washington state high schools are significantly less likely to have German as a world language option. However, they are significantly more likely to be in schools offering all other languages

with the exceptions being Spanish and ASL, for which the school means do not differ significantly from the sample mean. For Hispanics the pattern more closely approximates that of American Indians in Washington state high schools. The mean Hispanic population in all schools offering languages is significantly lower than the sample mean, with the one exception being Spanish. For whites the mean in schools offering certain languages does not differ significantly from the sample mean except for in three cases. Whites are less likely to be found in schools offering Chinese and more likely to be found in schools offering German and Russian. For free and reduced price lunch eligible students we see that they are less likely to be found where all languages other than Spanish are taught. Finally, the mean enrollment in all schools where languages are taught is significantly higher than the sample mean enrollment. These results suggest that world language offerings in Washington state high schools are tied to school demographics.

In order to predict the factors that affect a high school's world language offerings, I ran logistic, Poisson, and negative binomial regressions. I ran models for a total of nine dependent variables: the total number of world languages a school offers, the number of languages a school offers for at least two years, the number of languages that a school offers for at least four years, and whether or not a school offers Spanish, French, Japanese, Chinese, German, or American Sign Language (ASL).[2]

School size and the percent Hispanic students in a school predict the total number of languages a high school will offer. The results in Table 2 demonstrate that a 50 student increase in enrollment yields a 4% increase in the number of total languages offered, a

[2] I do not have enough cases of Latin and Russian to conduct analyses on these languages.

small, but significant amount. For each one percent increase in Hispanic students enrolled in a school, the number of total languages offered decreases by close to 1%.

<Table 2>

The number of world languages that a high school offers for at least two years is again best predicted by school size and percent Hispanic as shown in Table 3. An increase of 50 students yields a 5% increase in the number of world languages taught for at least two years. For each one percent increase in Hispanic students enrolled in a school, the number of world languages offered for at least two years decreases by about 1%, a non-significant amount.

<Table 3>

Table 4 demonstrates that the number of world languages that a high school offers for at least four years is best predicted by its size and the percentage of its student body that is Asian or Pacific Islander and that is eligible for free or reduced lunch benefits. For each 50 student increase in enrollment, the number of world languages a school teaches for at least four years increases by 7%. For each increase in the percent of Asian students at a school, the number of languages taught for at least four years increases by about 1.5%. Finally, for each percentage point increase in the number of students who are eligible for free or reduced lunch, the number of languages a school teaches for at least four years decreases by about 1%.

<Table 4>

I also conducted analyses to predict the offering of certain world languages in high schools. Tables 5, 6, and 7 show that for Spanish, French, and ASL total enrollment is the only factor that significantly affects whether or not these languages are offered. For an increase of 50 students in a high school, odds of offering Spanish, French, or ASL jump by 50 as well.

<Table 5>

<Table 6>

<Table 7>

For the other world languages I examined, I found that other factors matter as well. Table 8 shows that the odds of offering Japanese jump by 50 with an increase of 50 students in a high school. Urbanicity matters as well, which is not surprising, given Seattle's push to teach Japanese in its high schools. Every district outside of Seattle is less likely to offer Japanese, but only the most rural districts, that is those that are outside of metropolitan statistical areas, are significantly less likely to do so. The odds of offering Japanese are .19 times smaller for schools located in the most rural areas than for schools located in Seattle, holding other variables constant.

<Table 8>

In Table 9 we see that the odds of offering Chinese increase by 50 with an increase of 50 in a high school's total enrollment. In addition, the odds that Chinese will be offered increase by 1.1 with each one percentage point increase of Asian American students enrolled in a high school.

<Table 9>

German, shown in Table 10, is an interesting case. Like the other world languages, the odds of offering German increase by 50 with each increase of 50 students enrolled in a high school. In addition, with each increase of percent nonwhite students, which includes American Indian, black, and Hispanic students, the odds that a high school will offer German decrease significantly by a factor of .96, holding other variables constant. Finally, with each increase of percent Asian American students in a high school the odds of offering German decrease significantly by a factor of .90, holding other variables constant.

<Table 10>

Discussion

This study has a number of significant findings of interest to researchers, policymakers, and educators. First, we see that alternative high schools, at least in Washington State, are much less likely to offer world language courses, an omission staff overwhelmingly attribute to their smaller size and lack of funding. Although schools have alternative plans for their students to meet these requirements if students do not have their own transportation or are uninformed of these alternatives, they may not meet

the requirements of applying to a four year college. This has important implications for equal access to higher education.

Given the emphasis that staff at alternative high schools placed on school size acting as a barrier to offering world languages, it is not surprising to see that total enrollment has the largest and most consistent effect across all of the dependent variables in my regression models. This tells us that school size matters for the instruction of world languages in high schools in Washington State. This finding has important implications for the small schools movement, suggesting that smaller might not be better especially if it means cutting courses necessary for admission to four year colleges.

My findings also show that a school's racial and socioeconomic demographics help to predict world language course offerings in Washington's high schools. I demonstrate that schools serving higher proportions of disadvantaged students, such as minority or poor students, are less likely to offer world language courses than are their whiter and wealthier counterparts. Given our nation's commitment to equal access to higher education, it is disturbing to find that researchers are continually able to predict a high school's curriculum offerings based upon its demographic make-up.

We need to do a better job of preparing today's high school students not only for college, but also for life in a global economy. Learning world languages is more important now than ever before and it is vital that all students, regardless of race or socioeconomic background, are given the training necessary to thrive.

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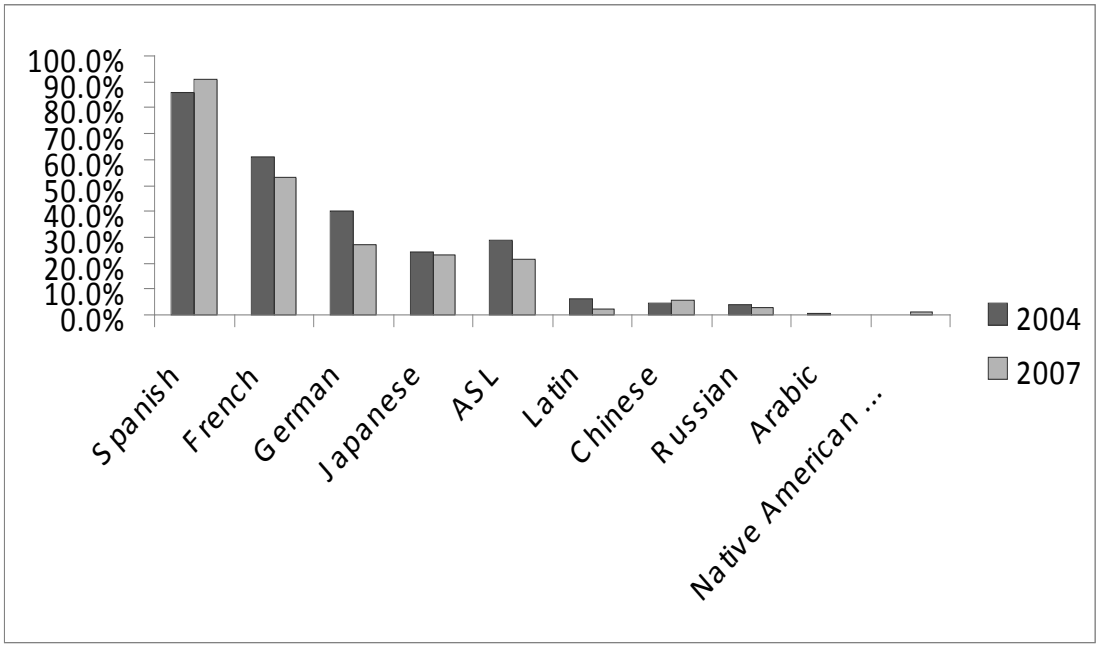
Figure 1. Percent of High Schools Offering Certain World Languages, Comparison of MELL Survey data from 2007 to World Languages Survey data from 2004[3]



[3] In the spring of 2004, the Office of Superintendent of Public Instruction (OSPI), the Washington Association for Language Teaching (WAFLT), and the Washington State Coalition for International Education conducted the first World Languages & Technology Survey to find out which languages were being taught in Washington.

Table 1. Demographic Means by World Language Offerings in Washington State

	% Asian	% American Indian	% Black	% Hispanic	% White	% Free or Reduced Price Lunch Eligible	Total Enrollment
MELL 2007 Sample (n=370)							
	5.7	4.0	4.4	10.8	72.1	33.5	731.5
Schools that Offer at Least One Year of World Languages (n = 297)							
	6.1	3.7	4.2	10.4	72.9	32.6	870.7*
Number of Languages that a High School Offers for at least Two Years							
0	6.2	4.4	5.9*	9.5	68.5*	33.7	549.8*
1	2.2*	5.6*	5.2*	14.0*	75.6*	39.0*	311.4*
2	6.1	3.5	5.9*	10.7	71.9	35.6*	782.1
3	10.0*	2.3*	5.8*	9.0*	70.9	28.1*	1271.6*
4	7.9*	1.7*	5.2*	5.8*	78.2*	25.0*	1680.3*
5	8.3*	1.8*	5.1*	7.6*	64.7*	21.4*	1528.3*
6	11.6*	2.8*	2.4*	4.1*	78.2*	13.4*	1879.3*
Number of Languages that a High School Offers for at least Four Years							
0	4.0*	4.5	3.4*	10.2	74.4*	36.3*	472.7*
1	4.2*	6.2*	3.9	17.3*	67.9*	37.6*	729.6
2	8.2*	2.1*	5.9*	10.2	73.0	30.8*	1192.5*
3	11.4*	1.6*	4.9	8.1*	73.4	23.3*	1501.9*
4	8.5*	1.8*	5.9*	5.6*	70.6	24.8*	1632.2*
5	10.3*	1.7*	3.2*	5.1*	78.8*	14.9*	1743.4*
Language is Offered							
Spanish							
No	4.3*	7.8*	3.4*	9.2*	72.3	35.8*	469.1*
Yes	6.4*	3.1*	4.4	10.6	73.0	32.1	931.4*
French							
No	3.5*	5.1*	2.7*	12.2*	74.2*	37.1*	449.2*
Yes	8.7*	2.3*	5.8*	8.6*	71.6	28.1*	1289.4*
Japanese							
No	5.0*	4.0	3.6*	11.3	73.6	34.4	741.2
Yes	9.8*	2.5*	6.5*	7.0*	70.6	26.3*	1323.9*
Chinese							
No	5.6	3.8	4.0	10.5	73.5	33.0	840.4*
Yes	14.5*	1.4*	7.9*	7.9*	61.7*	24.9*	1440.4*
German							
No	6.2	4.3	4.6	11.3	71.0	35.3*	673.5*
Yes	5.8	1.9*	3.3*	7.7*	78.3*	25.0*	1434.2*
Latin							
No	6.0	3.7	4.2	10.4	72.9	32.8	858.3*
Yes	9.4*	1.9*	6.4*	9.1*	72.7	23.8*	1386.1*
Russian							
No	6.0	3.7	4.2	10.5	72.9	32.7	859.3*
Yes	8.5*	2.9*	6.1*	7.8*	74.2*	29.9*	1197.3*
ASL							
No	5.7	4.0	4.2	11.1	72.7	34.0	742.5
Yes	7.6*	2.6*	4.6	7.7*	73.8	27.4*	1347.0*

*Significantly different from the sample mean at $p<.05$

Table 2. Poisson Regression Models Predicting the Total Number of World Languages a High School Offers

	Models	
Independent Variables	1	2
Total Enrollment	.0009***	.0009***
	(.0000)	(.0000)
Percent Hispanic		-.0065*
		(.0031)
L2	254.93	259.59
df	1	2

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

Table 3. Poisson Regression Models Predicting the Total Number of World Languages a High School Offers for at Least Two Years

	Models	
Independent Variables	1	2
Total Enrollment	.0009***	.0009***
	(.0001)	(.0001)
Percent Hispanic		-.0063
		(.0032)
L2	273.33	277.53
Df	1	2

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

Table 4. Negative Binomial Regression Models Predicting the Total Number of World Languages a High School Offers for at Least Four Years

	Models		
Independent Variables	1	2	3
Total Enrollment	.001***	.001***	001***
	(.000)	(.000)	(.000)
Percent Asian or Pacific		.015*	.015*
Islander		(.007)	(.007)
Percent Free or Reduced Lunch			-.008*
Eligible			(.003)
L2	215.67	220.26	222.97
df	1	2	3

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

Table 5. Logistic Regression Model Predicting the Likelihood that Spanish Will Be Offered in a School

	Odds Ratios
Independent Variables	
Total Enrollment	1.001***
	(.0004)
L2	19.93
df	1

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

Table 6. Logistic Regression Model Predicting the Likelihood that French Will Be Offered in a School

	Odds Ratios
Independent Variables	
Total Enrollment	1.003***
	(.0003)
L2	146.50
df	1

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

Table 7. Logistic Regression Model Predicting the Likelihood that American Sign Language (ASL) Will Be Offered in a School

	Odds Ratios
Independent Variables	
Total Enrollment	1.001***
	(.0002)
L2	42.46
df	1

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

Table 8. Logistic Regression Model Predicting the Likelihood that Japanese Will Be Offered in a School

	Odds Ratios
Independent Variables	
Total Enrollment	1.001***
	(.0003)
Urban2 – Mid-size City	.706
	(.442)
Urban3 – Urban Fringe of Large City	.784
	(.479)
Urban4 – Urban Fringe of Mid-size City	.213*
	(.162)
Urban5 – Large Town	(dropped)
Urban6 – Small Town	.868
	(.628)
Urban7 – Rural outside CBSA/MSA	.211
	(.173)
Urban8 – Rural inside CBSA/MSA	.274
	(.197)
L2	53.46
Df	7

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

Table 9. Logistic Regression Model Predicting the Likelihood that Chinese Will Be Offered in a School

	Odds Ratios
Independent Variables	
Total Enrollment	1.001* (.0005)
Percent Asian or Pacific Islander	1.084** (.029)
L2	19.82
Df	2

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

Table 10. Logistic Regression Model Predicting the Likelihood that German Will Be Offered in a School

	Odds Ratios
Independent Variables	
Total Enrollment	1.002*** (.0004)
Urban2 – Mid-size City	4.719 (6.924)
Urban3 – Urban Fringe of Large City	5.022 (7.328)
Urban4 – Urban Fringe of Mid-size City	7.352 (11.219)
Urban5 – Large Town	(dropped)
Urban6 – Small Town	3.115 (4.908)
Urban7 – Rural outside CBSA/MSA	3.273 (5.277)
Urban8 – Rural inside CBSA/MSA	1.851 (2.846)
Percent Nonwhite (American Indian/Black/Hispanic)	.956* (.015)
Percent Asian or Pacific Islander	.901* (.032)
L2	116.02
df	9

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