How Does Ability To Speak English Affect Earnings?

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Introduction

In 2000, the percentage of people in the United States who spoke a language other than English at home was 18 percent, up from 14 percent in 1990, and 11 percent in 1980.[1] Among people who spoke a language other than English at home in 2000, 55 percent also spoke English "very well," 22 percent "well," 16 percent "not well," and 7 percent "not at all."

Among people in the labor force in 2000, 16 percent reported they spoke a language other than English. For many reasons the ability to speak English may affect a person's ability to make money. Difficulty speaking English can adversely affect the ability to get a job, get a full-time job, and earn competitive salaries in the U.S. labor market. Employers may avoid hiring otherwise qualified individuals who have difficulty communicating effectively. People who have difficulty with English may feel uncomfortable applying for some jobs that require proficiency in English.

Previous research has examined the relationship between language skills and earnings. Several studies showed that language attributes play an important role in explaining the wage differences in earnings among Hispanic and Anglo workers (Reimers, 1983; Greiner, 1984; McManus, Gould, Welch, 1983).[2] Other studies have found a positive relationship between earnings of immigrants and the length of time in the host country, often interpreted as an indication that immigrants assimilate in the host country's labor market (Chiswick, 1978; Carliner, 1980; Borjas, 1985).[3] McManus, Gould, and Welch suggest that wage differences which are usually explained by ethnicity, nativity, and time in the United States can be explained by differences associated with English-language skills.

Using Census 2000 data, this analysis explores the extent to which people who speak a non-English language are penalized by their level of English-speaking ability. We start our analysis considering employment status, work status, and earnings of people who speak a non-

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1 Hyon B. Shin and Rosalind Bruno. Language Use and English-Speaking Ability: 2000. Census 2000 Brief C2KBR-29. Washington, DC: U.S. Census Bureau, 2003.

2 Reimers, CCW., "Labor Market Discrimination Against Hispanics and Black Men," *Review of Economics and Statistics*, November 1983, 65, 570-79; Greiner, G., "The Effect of Language Characteristics on the Wages of Hispanic-American Males," *Journal of Human Resources*, Winter 1984, 19, 25-52.; McManus, W., Gould, W., and F. Welch, "Earnings of Hispanic Men: The Role of Proficiency in the English Language," *Journal of Labor Economics*, April 1983, 1, 110-130.

3 Chiswick, B., "The Effect of Americanization on Earnings of Foreign-born Men," *Journal of Political Economy* 86 (Oct 1978), 897-921.; Carliner, G., "Wages, Earnings, and Hours of First, Second, and Third Generation American Males", *Economic Inquiry*, 18(Jan. 1980), 87-102.; Borjas, G., "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants," *Journal of Labor Economics* 3(Oct. 1985), 463-489.

English language. We next examine this relationship by worker's personal characteristics (age, sex, race/Hispanic origin, educational attainment, occupation, nativity, year of entry, and length of time in the US). We then consider the specific language spoken to determine whether some language groups have more of an advantage than others in their ability to earn money.

We address the following questions:

1. Does English-speaking ability affect employment status, work status, and earnings?

2. Do these relationships hold across a variety of personal characteristics which themselves relate to employment and earnings?

3. Do the relationships between English-speaking ability and employment status, work status, and earnings differ among various language groups?

Data

This paper uses data from the Census 2000 long form. The long form provides socio-economic detail needed to administer a wide range of government programs and to fulfill federal requirements. Nationwide, it went out to one in six housing units. However, to assure the same level of accuracy everywhere, a larger share of housing units in small towns and rural counties received this form.

The data tallies used for this analysis derive from the Census Bureau's internal restricted file, the Sample Edited Detailed File (SEDF). The sample data set consists of 43,459,449 individual records that when weighted represent the total U.S. population in 2000 of 281 million people. From this universe, we selected people who were both ages 25 and older and in the labor force in 2000, representing 115 million people. We then selected people who were employed at any time during 1999 (representing 126 million people) and working full time, year round, with earnings (representing 81 million people).

For this analysis, we summarized the data into employment status (employed/not employed), work status (full-time, year-round and part-time, part-year), 39 language groups, 5 levels of English-speaking ability, 5 age groups, 2 sex groups, 5 race and Hispanic origin group combinations, 3 summary educational attainment categories, 6 broad occupational categories, and 2 nativity statuses in addition to age of entry into the U.S. and years in US as a subset of nativity. We also derived median earnings. Categories containing less than 50 sample cases were not included in the analysis.

<u>Language</u>

Data on language spoken at home were derived from answers to long-form items 11a and 11b. Questions 11a and 11b referred to languages spoken at home in an effort to measure the current use of languages other than English. The questions did not permit determination of the primary or dominant language of people who spoke English and another language, nor any languages spoken outside of the home.

Question 11a asked whether a person spoke a language other than English at home. Those who responded "yes" to 11a were then instructed in Question 11b to print the name of the non-English language spoken at home. The write-in answers to Question 11b (specific language spoken) were optically scanned and coded into about 380 detailed language categories using an automatic coding system. For this analysis, we used the standard 39 language classification list (shown in census tabulations) which provided data for specific languages with the most numerous speakers, along with select summary language groups made up of the other languages with fewer speakers.

English-Speaking Ability

English ability was derived from the Census Question 11c which was asked of people who indicated in Question 11a that they spoke a language other than English at home. The question provided four English-speaking ability levels: Very well, Well, Not Well, and Not at all.

The data on ability to speak English represents the person's own perception about his or her English-speaking ability. Because census questionnaires are usually completed by one household member, the responses may represent the perception of another household member. Respondents were not instructed on how to interpret the response categories.

Employment Status in 2000

Data on employment status were derived from answers to Questions 21 and 25. The series of questions on employment status was designed to identify people who worked at any time during the reference week, people who did not work during the reference week, but who had jobs or businesses but were temporarily absent, people on temporary layoff and expected to be called to work in the next 6 months, and people who did not work during the reference week and were looking for work.

The "employed" population includes civilians 16 and older who either were "at work" or were "with a job but not at work." "Unemployed" includes people who were not employed and looking for work or were on temporary layoff. This paper includes only the civilian labor force.

Work Status in 1999

Data on work status refers to 1999 and were derived from answers to Question 30b which determined how many weeks worked during 1999 and Question 30c which determined how many hours worked during each week. Full-time, year-round workers consisted of people who usually worked 35 hours or more per week for 50 to 52 weeks in 1999.

Earnings in 1999

Earnings data refer to 1999 earnings and were derived from Question 31a. Earnings are defined as the sum of wages or salary income and net income from self employment. Earnings represent the amount of income received regularly before deductions.

Median annual earnings were constructed as either interpolated from a frequency distribution of unrounded data, or in some cases with smaller cell sizes, point quantiles and rounded to two significant digits . We created iterated medians of earning shown for all 39 languages by English-speaking ability.

Educational Attainment

Data on educational attainment were derived from answers to Question 9. The questionnaire required respondents to mark the best possible answer. The order in which degrees were listed on the questionnaire suggested a ranking from lowest to highest degree, where doctorate degrees were higher than professional degrees, which were higher than master degrees, and so on. From a list of 16 possible educational attainments, we collapsed these groups into 3 educational attainment levels:

Less than high school
High school graduate or GED equivalent or some college
Bachelor's or more

Occupation

The data on occupation were derived from answers to the long-form Question 28, which was asked of a sample of the population 15 and older. Occupation describes the kind of work a person does on the job. Respondents provided the data for the tabulations by writing descriptions of their occupations on the questionnaires. These descriptions were captured and sent to an automated coder which assigned a portion of the written entries to categories in the classification system. The automated system assigned codes to 56 percent of the occupation categories. Cases not coded by the computer were sent to manual coding.

The occupational classification system used during Census 2000 consists of 509 specific occupational categories for employed people arranged into 23 occupational groups. This classification was developed based on the Standard Occupational Classification (SOC) Manual: 2000, which includes a hierarchical structure showing 23 major occupational groups divided into 96 minor groups, 449 broad groups, and 821 detailed occupations. For this analysis, we collapsed the 23 occupational groups into 6 general types.

Nativity

The data on nativity come from the census long-form Question 12, "Where was this person born?" For the purposes of this paper, native refers to people born within the 50 states and the District of Columbia, and foreign born refers to people born elsewhere. We split the

foreign-born population with two variables: Age of Entry and Years in US, both derived from the census Question14, "When did this person come to live in the United States?"

Results

1. Does English-speaking ability affect employment status, work status, and earnings?

Yes. Figure 1 shows that people who spoke a language other than English at home were less likely to be employed, less likely to find full-time work when employed, and, even having found full-time employment, experience lower median earnings than those who spoke only English.

In addition, among those who spoke another language, employment, work status, and earnings varied directly with their ability to speak English. Those with the lowest English-speaking ability had the lowest employment rate, lowest rate of full-time employment, and lowest median earnings.

On average, workers who spoke only English earned $5,600 more than people who spoke another language. However, the differences in earnings between those who spoke English at the highest ability (very well) from English-only speakers was relatively small ($966). The earnings difference between the "very well" speakers and "well" speakers showed the largest gap in earnings ($7,000) between adjacent levels.

2. Do these relationships hold across a variety of personal characteristics which themselves relate to employment and earnings?

Yes. The positive relationships between greater English-speaking ability and higher rates of employment, higher rates of full time employment, and higher median earnings, hold true across a range of personal characteristics (Tables A, B, and C). Within each characteristic, English-only speakers and people who spoke English "very well" almost always had a higher percentage employed, a higher percentage working full time, and higher median earnings.

A few interesting patterns occur within several characteristics. The differences between men and women were most noticeable at the lowest English-speaking ability, suggesting that women suffer a higher employment penalty than men for not speaking English "very well." At most ability levels, White non-Hispanics and Asian non-Hispanics had a higher percentage employed, a higher percentage working full time, and earned more than Black non-Hispanics or Hispanics. High school dropouts had lower measures across all ability levels than do high school graduates or more. Among occupations, farmers had the lowest percentages of employment and full time status, the lowest earnings, and experienced the greatest reduction in full-time employment across the English-speaking ability scale. Surprisingly, the three measures did not differ much between native and foreign born with the exception of earnings for the "very well" group where foreign-born workers earned more than natives did.

Regression analysis reveals additional details of these relationships (Table D). Models 1 and 2 use logistic regression to explore the probability of employment and full-time work status. Holding age, sex, race/origin, education, nativity, and occupation constant, we see that speaking a non-English language lowers the probability of employment and of finding full-time work, and that the employment penalty increases as English-speaking ability decreases. Those who spoke a language other than English at home, but spoke English "very well," were 0.864 as likely to be employed as English-only speakers, and 0.927 as likely to find full-time employment. However, those who spoke English "not at all" were only 0.604 as likely to be employed and 0.661 as likely to be employed full time.

Model 3 illustrates the relationship between earnings and English-speaking ability. We used the log of earnings to reduce the impact of outliers. Here we also found, when holding all modeled characteristics constant, that speaking a non-English language reduces earnings, and that the earnings penalty increases as English-speaking ability decreases. All abilities have a negative coefficient and this increases in magnitude from -.01 for those who spoke English "very well" to -.29 for those who spoke English "not at all."

3. Do the relationships between English-speaking ability and employment status, work status, and earnings differ among various language groups?

To a great extent, no. With few exceptions among the 39 language groups, those who also spoke English "very well" realized higher rates of employment, higher rates of full-time employment, and higher median earnings than those who spoke English less well (Figures 2, 3, and 4). In fact, each higher level of English-speaking ability associates with a rise in employment and earnings across nearly all language groups.

All three figures rank the languages based on the "very well" line to provide a clearer picture of the effects at this level. Though similar, the three figures do not have the same language ordering.

In both Figures 2 and 3, the percentage employed and percentage full-time for those who spoke English "very well," change only slightly across languages. This relatively flat line suggests that for people who spoke English "very well," the specific non-English language spoken does not substantially influence their employment status and work status.

Figure 4, in contrast, does show a marked downward trend in median annual earnings across languages for people who spoke English "very well." However, Model 3 suggested a strong relationship between earnings and educational attainment. If educational attainment varied among the different language groups, this intervening factor might explain the sharp slope in Figure 4.

Figure 5 shows the distribution of educational attainment for people who spoke English "very well" in each language category. The language groups are ordered by average earnings, as in the previous earnings figure. Notice the downward slope from left to right of the percentage

of people who spoke English "very well" and had a bachelor's degree or more education. In contrast, notice a sharply rising line of people without a high school diploma. Thus, the language groups listed on the far left, those with the higher earning levels, contain mostly people with high education. Conversely, the language groups on the right, with the lowest median earnings, have fewer highly educated members and proportionally more high school dropouts.

Figure 6 shows the median annual earnings of people who spoke English "very well" controlling for education. The original sloping line of "very well" speakers is closest to the top line of speakers with a bachelor's or more education at the far left. This reflects what we saw in the previous figure where the groups on the left had very high proportions (close to 85 percent) with a bachelor's or more education. On the right, the original line comes very close to the lower line, reflecting the greater weight of people with no high school diploma in those groups.

For each language group, those with a bachelor's degree or more education earned more than workers who do not have a high school diploma. In fact, the lowest line suggests that not having a high school education equally affects the earnings of all language groups.

Conclusions

Clearly, English-speaking ability influences a worker's ability to succeed, regardless of the particular language spoken at home. The degree to which a person can communicate in English influences employment status, and once employed, his or her ability to find full-time, year-round employment. Even among those who have full employment, those with the highest ability to speak English have the highest earnings. These earnings approach the earnings of English-only speakers.

Research note:

Even marginal movements within the English-speaking ability scale predict corresponding movements in key social indicators, such as employment and earnings. This suggests that the present question successfully captures much of the underlying social phenomena which English-speaking ability represents. The English-speaking ability indicator may prove useful to other researchers interested in assimilation, social stratification, or employment issues.

Table A.
Percent Employed by English-Speaking Ability for People 25 Years and Older in the Labor Force: 2000

Characteristic	English only	Very well	Well	Not well	Not at all
Age					
25 to 34 years	95.2	94.2	93.0	91.2	87.2
35 to 44 years	96.1	95.3	94.1	91.3	86.6
45 to 54 years	96.7	95.8	94.6	92.2	87.0
55 to 64 years	96.8	96.0	94.6	92.4	87.7
65 or older	94.4	93.5	93.3	92.1	87.8
Sex					
Male	96.1	95.3	94.5	93.0	90.4
Female	96.0	94.8	93.1	89.5	82.5
Race/origin					
White alone non-Hispanic	96.8	96.3	95.3	94.1	89.6
Black alone non-Hispanic	91.6	92.9	91.5	89.3	83.6
Asian alone non-Hispanic	96.6	96.8	96.0	94.4	92.1
Other alone non-Hispanic	93.3	92.5	91.4	91.3	88.1
Hispanic	93.3	93.9	92.7	90.4	86.5
Education					
Less than high school diploma	93.9	92.3	92.7	91.0	86.9
High school/some college	96.6	95.5	94.6	93.0	89.0
Bachelors or more	98.2	97.3	96.1	94.1	88.8
Occupation					
Manager	98.1	97.4	96.5	94.4	87.2
Service	94.8	94.5	94.7	93.7	91.2
Sales	96.6	95.5	94.8	92.8	87.5
Farmer	91.4	84.9	84.9	83.8	79.7
Construction	94.6	93.6	93.6	93.0	91.5
Production	94.9	93.9	94.0	92.5	90.3
Nativity					
Native	96.1	94.3	92.5	93.6	87.3
Foreign born	95.5	95.7	94.2	91.3	87.1
Age of Entry					
Less than age 18	96.2	95.2	93.1	90.1	96.2
18 or older	94.9	96.0	94.5	91.5	87.2
Years in United States+A14					
5 years or less	93.8	94.9	93.3	91.1	87.7
6 to 10 years	94.5	95.9	94.5	91.7	86.9
11 to 15 years	94.4	95.9	94.5	91.5	86.5
16 to 20 years	95.0	95.8	94.4	91.4	86.6
21 years or more	96.3	95.8	94.2	91.0	86.5

Note: Employment status is based on questions about working status the week before April 1, 2000.

Source: U.S. Census Bureau, 2000 Census.

Table B.
Percent Working Full Time, Year Round by English-Speaking Ability For Employed People 25 and Older: 1999

Characteristic	English only	Very well	Well	Not well	Not at all
Age					
25 to 34 years	65.7	60.0	52.6	48.9	41.7
35 to 44 years	59.6	66.0	58.0	50.6	40.9
45 to 54 years	70.8	67.6	61.4	43.8	43.5
55 to 64 years	61.8	61.9	58.6	52.9	42.2
65 or older	28.0	33.0	33.2	33.9	30.4
Sex					
Male	74.1	68.9	61.1	54.7	45.7
Female	56.5	55.4	49.4	44.3	35.7
Race/origin					
White alone non-Hispanic	66.6	63.7	59.6	58.1	48.7
Black alone non-Hispanic	61.8	61.1	57.9	56.9	51.7
Asian alone non-Hispanic	66.7	65.8	59.4	52.6	45.2
Other alone non-Hispanic	61.5	60.7	57.3	54.9	48.2
Hispanic	60.4	61.3	53.7	48.1	40.8
Education					
Less than high school diploma	62.5	58.4	54.0	49.3	41.0
High school/some college	68.1	64.1	58.1	54.0	47.0
Bachelor or more	67.4	65.9	60.5	55.0	47.0
Occupation					
Manager	68.1	66.1	61.0	56.5	45.9
Service	52.2	52.6	48.5	45.4	39.3
Sales	65.5	62.7	56.6	51.5	45.5
Farmer	51.0	42.4	39.2	35.4	23.6
Construction	70.6	64.4	57.0	51.2	44.9
Production	69.2	63.4	59.3	53.8	45.4
Nativity					
Native	65.9	61.9	56.7	59.8	48.4
Foreign born	63.7	63.5	56.3	49.4	41.4
Age of Entry					
Less than age 18	66.6	64.2	55.6	49.2	41.4
18 or older	61.1	63.1	56.5	49.4	41.4
Years in United States+A7					
5 years or less	57.8	55.6	49.1	46.2	40.5
6 to 10 years	62.1	62.7	56.1	50.5	43.0
11 to 15 years	63.1	64.0	56.6	49.4	41.3
16 to 20 years	65.0	65.5	58.7	50.9	41.9
21 years or more	64.8	64.9	58.0	50.2	40.4

Source: U.S. Census Bureau, 2000 Census.

Table C.
Median 1999 Annual Earnings by English-Speaking Ability for Full-time, Year-round Workers Age 25 and Older

Characteristic	English only	Very well	Well	Not well	Not at all
Age					
25 to 34 years	$30,630	$30,528	$24,775	$19,457	$15,864
35 to 44 years	$36,430	$36,231	$28,336	$21,378	$16,542
45 to 54 years	$28,911	$37,812	$29,980	$22,050	$16,898
55 to 64 years	$36,404	$36,854	$29,349	$21,979	$16,423
65 or older	$27,502	$30,637	$24,976	$19,171	$15,000 *
Sex					
Male	$40,408	$38,304	$30,104	$22,315	$17,634
Female	$28,887	$29,674	$23,639	$17,979	$14,049
Race/origin					
White alone non-Hispanic	$36,202	$39,564	$33,355	$31,036	$25,740
Black alone non-Hispanic	$28,556	$31,024	$25,976	$24,776	$22,000 *
Asian alone non-Hispanic	$41,639	$43,892	$31,854	$22,102	$16,115
Other alone non-Hispanic	$30,881	$31,004	$26,143	$23,111	$21,000 *
Hispanic	$30,857	$29,213	$24,132	$18,971	$16,055
Education					
Less than high school diploma	$24,383	$22,142	$22,041	$18,497	$15,618
High school/some college	$31,249	$30,026	$26,739	$22,651	$19,324
Bachelor or more	$50,367	$50,013	$40,774	$34,210	$26,398
Occupation					
Manager	$45,544	$46,840	$41,084	$36,043	$28,987
Service	$23,732	$22,849	$20,375	$16,788	$14,135
Sales	$30,066	$29,081	$26,173	$22,788	$18,817
Farmer	$22,290	$19,325	$18,709	$16,000 *	$14,000 *
Construction	$35,606	$31,911	$29,063	$22,715	$18,867
Production	$31,110	$27,727	$25,353	$20,244	$16,141
Nativity					
Native	$35,163	$31,987	$29,019	$31,815	$24,597
Foreign born	$36,819	$36,123	$27,004	$20,054	$16,213
Age of Entry					
Less than age 18	$37,701	$34,098	$26,472	$20,431	$16,983
18 or older	$35,933	$37,254	$27,162	$19,987	$16,120
Years in United States					
5 years or less	$35,924	$35,439	$25,121	$18,370	$15,789
6 to 10 years	$31,875	$33,255	$25,308	$18,803	$15,818
11 to 15 years	$32,416	$33,601	$26,171	$19,990	$16,222
16 to 20 years	$34,857	$35,313	$27,480	$20,949	$17,011
21 years or more	$39,116	$37,862	$29,934	$21,936	$17,370

* Median not interpolated. Based on Proc Univariate SAS procedure and rounded to two significant digits.

Source: U.S. Census Bureau, 2000 Census.

Table D.
Models of Employment Status, Work Status, and Earnings With Personal Characteristics Including English-Speaking Ability, Age, Sex, Race/origin, Educational Attainment, Nativity, and Occupation

Characteristic	Model 1. (Logistic) Odds ratio of the probability of			Model 2. (Logistic) Odds ratio of the probability of			Model 3. (OLS) Relationship	
	Point estimate	95% confidence interval		Point estimate	95% confidence interval		Parameter estimate	Standard error
Intercept	3.0476	(na)	(na)	1.2504	(na)	(na)	10.1079	0.000821
Ability to speak English								
Very well	0.864	0.860	0.867	0.927	0.925	0.928	-0.0121	0.0008
Well	0.841	0.836	0.845	0.787	0.785	0.789	-0.1035	0.0017
Not well	0.768	0.764	0.773	0.746	0.744	0.748	-0.1949	0.0014
Not at all	0.604	0.599	0.608	0.661	0.658	0.664	-0.2874	0.0024
Age	1.005	1.005	1.005	0.983	0.983	0.983	0.0058	0.0000
Sex	1.072	1.070	1.074	2.256	2.254	2.258	0.3439	0.0004
Race/origin								
Black alone non-Hispanic	0.435	0.434	0.436	0.888	0.887	0.889	-0.0998	0.0006
Asian alone non-Hispanic	0.817	0.812	0.822	0.946	0.944	0.949	-0.0186	0.0011
Other alone non-Hispanic	0.508	0.505	0.511	0.818	0.816	0.820	-0.0926	0.0012
Hispanic	0.661	0.659	0.664	0.812	0.811	0.814	-0.0905	0.0008
Education								
Less than high school diploma	0.466	0.465	0.467	0.648	0.647	0.649	-0.2150	0.0006
Bachelors degree or more	2.009	2.004	2.015	0.894	0.893	0.895	0.3454	0.0004
Nativity								
Age of entry								
Less than age 18	1.206	1.200	1.212	0.980	0.978	0.982	0.0749	0.0010
18 or older	1.269	1.264	1.275	1.112	1.109	1.114	0.0285	0.0009
Years in United States+A8								
5 years or less	0.784	0.780	0.788	0.583	0.582	0.585	-0.1067	0.0015
Occupation								
Service	(x)	(x)	(x)	0.574	0.573	0.575	-0.4488	0.0006
Sales	(x)	(x)	(x)	0.978	0.977	0.979	-0.2096	0.0005
Farmer	(x)	(x)	(x)	0.397	0.395	0.399	-0.5748	0.0025
Construction	(x)	(x)	(x)	0.726	0.725	0.728	-0.2300	0.0007
Production	(x)	(x)	(x)	0.874	0.873	0.875	-0.2724	0.0006

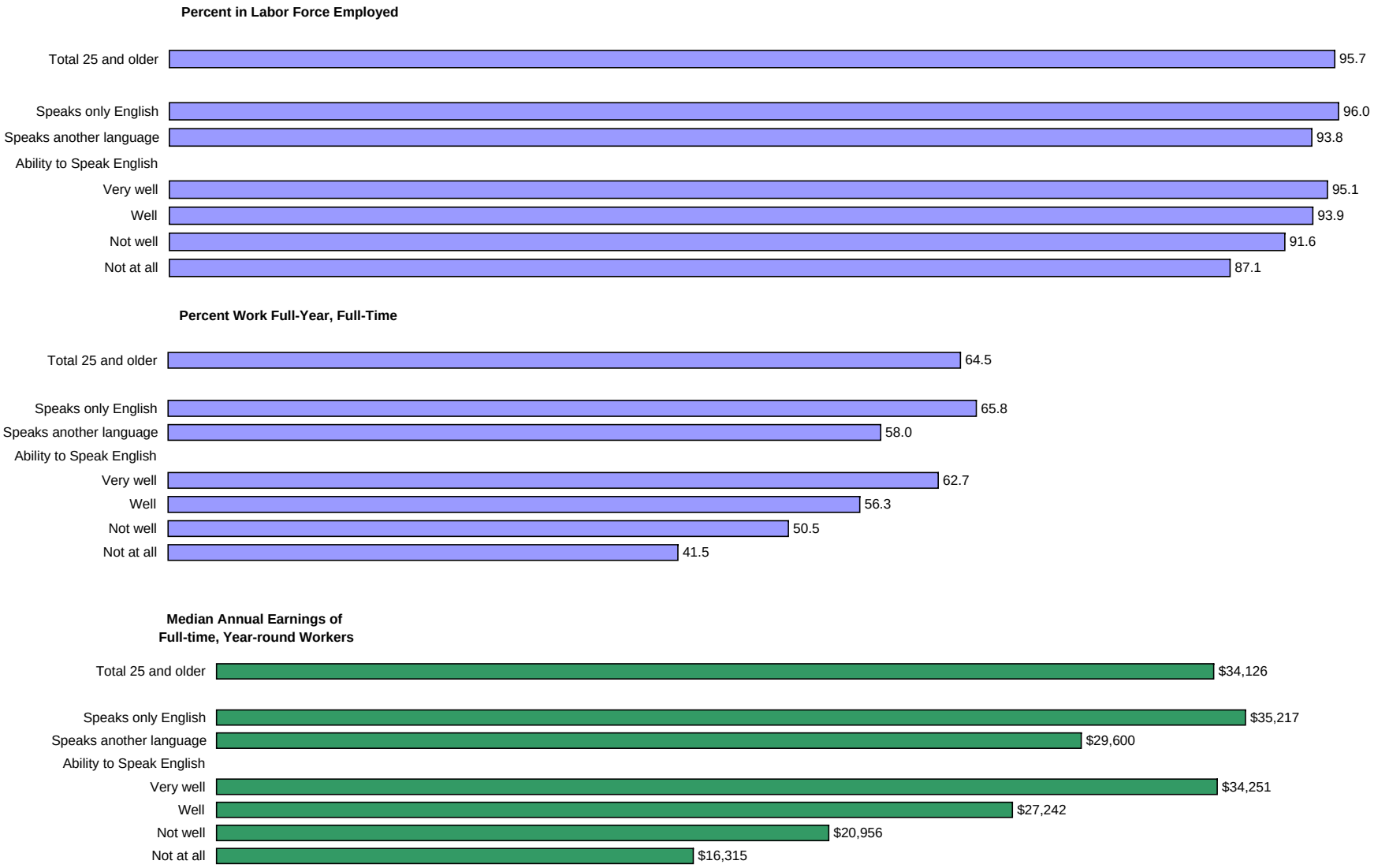
Note: Omitted categories include (1) English only speakers; (2) White alone non-Hispanic; (3) high school graduates/some college; (4) natives; (5) foreign born in the U.S. more than 5 years; and (6) managers.

(na) not applicable.
(x) not included in model.

Source: U.S. Census Bureau, Census 2000.

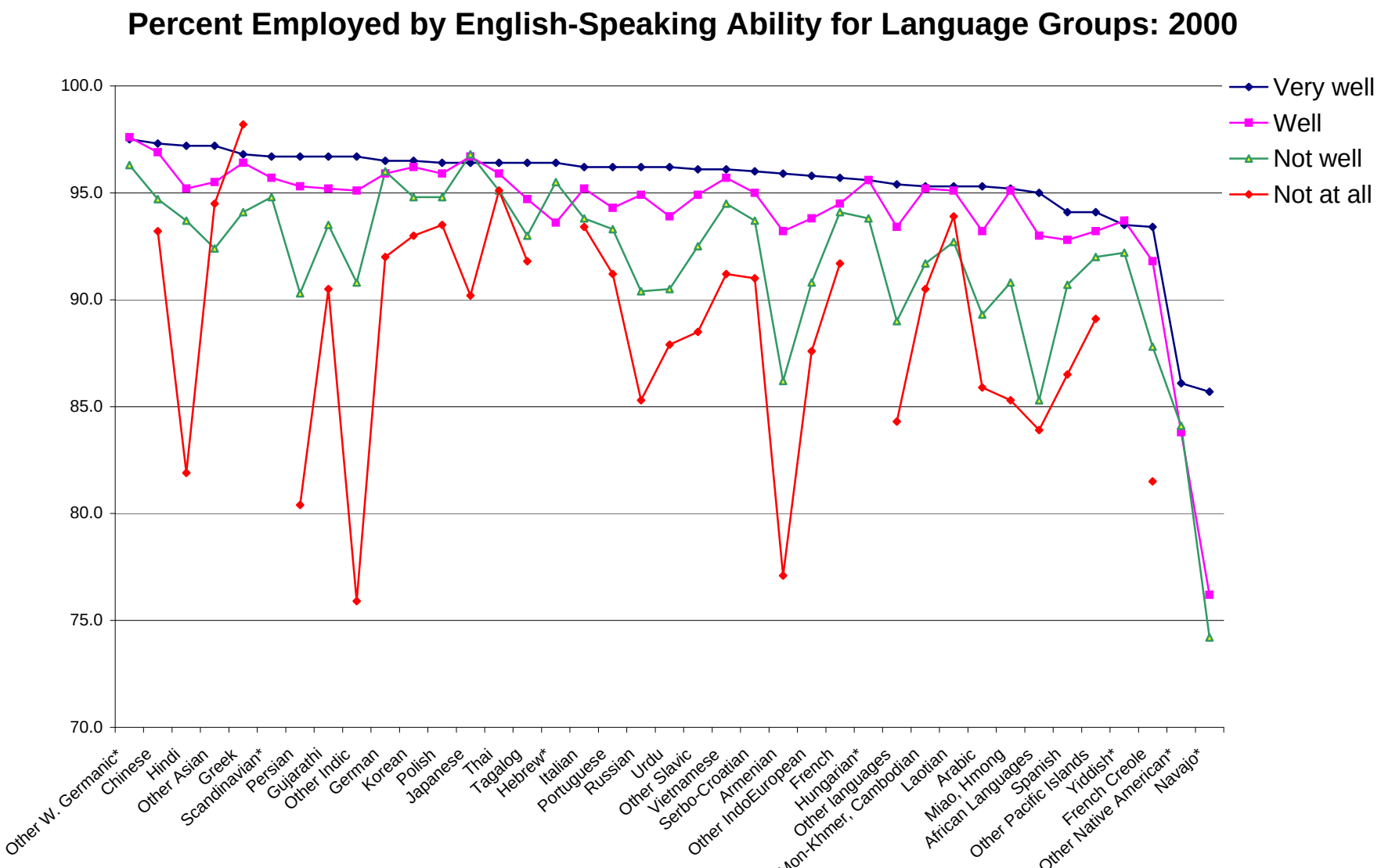
Figure 1.

Employment Status, Work Status, and Median Annual Earnings by English Ability



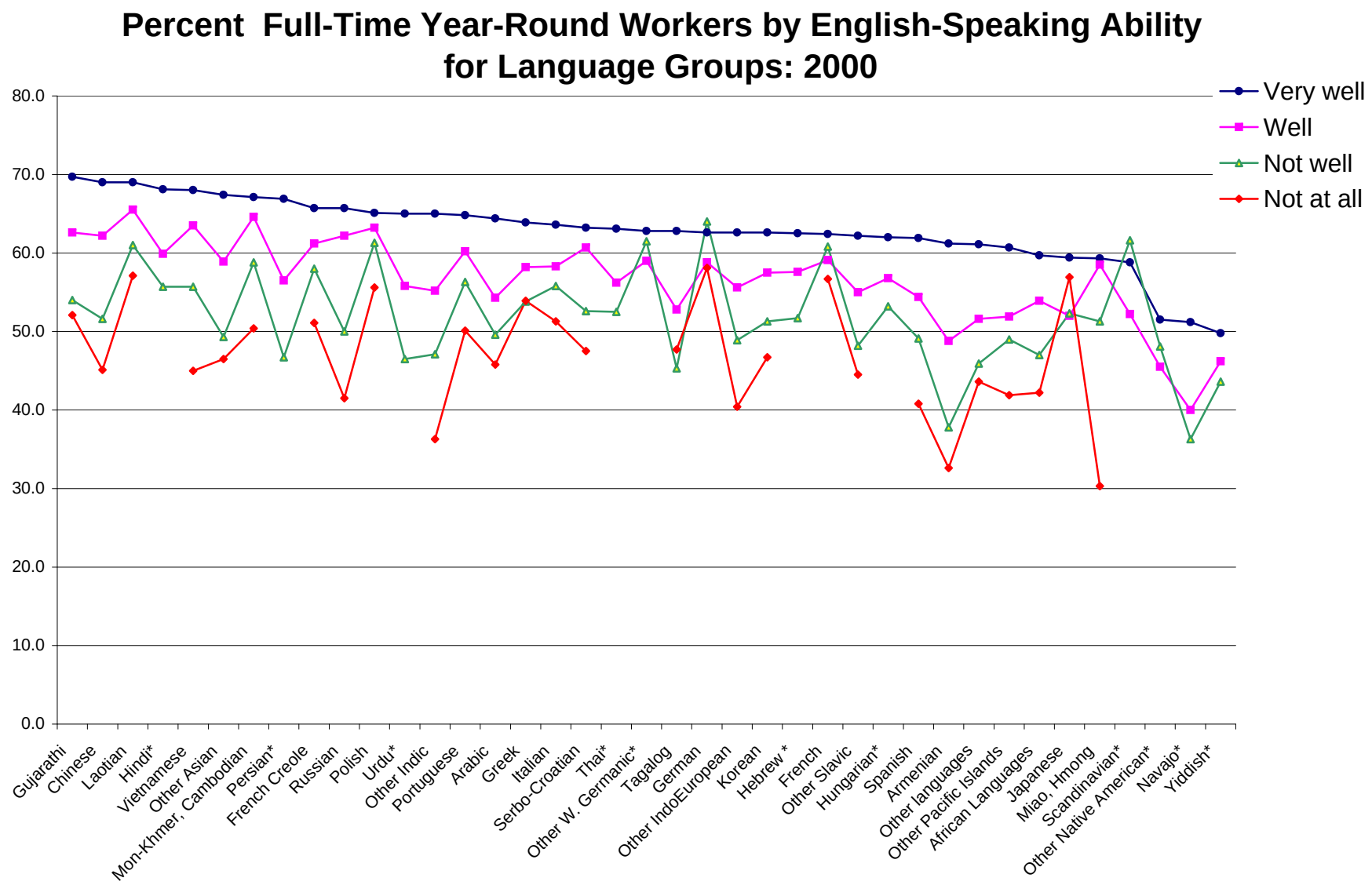
Source: U.S. Census Bureau, Census 2000.

Figure 2.



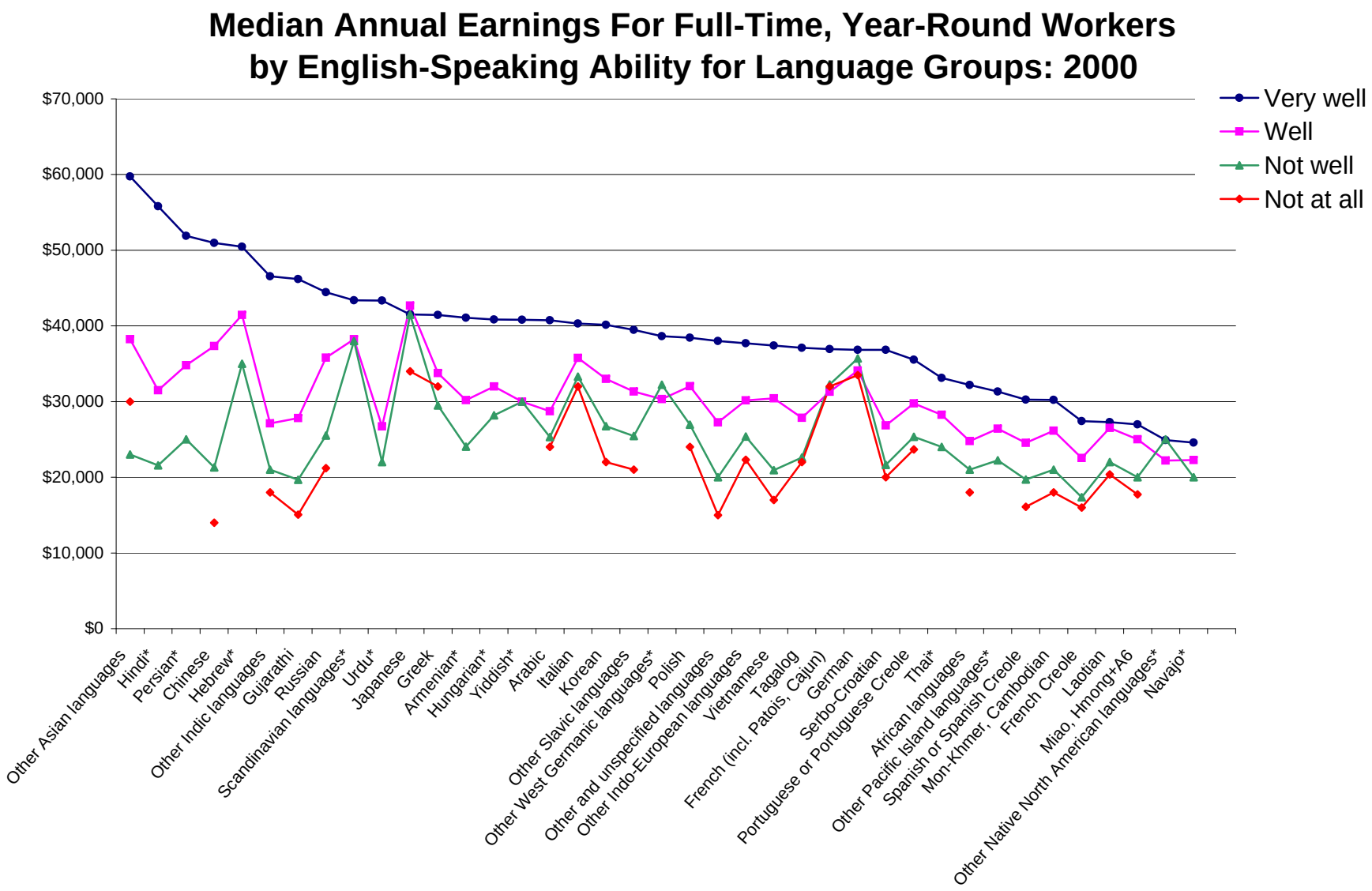
* English ability of "Not at all" for language groups with less than 50 sample cases are not shown.
Note: Languages ranked on the "very well" category.
Source: U.S. Census Bureau, Census 2000.

Figure 3.



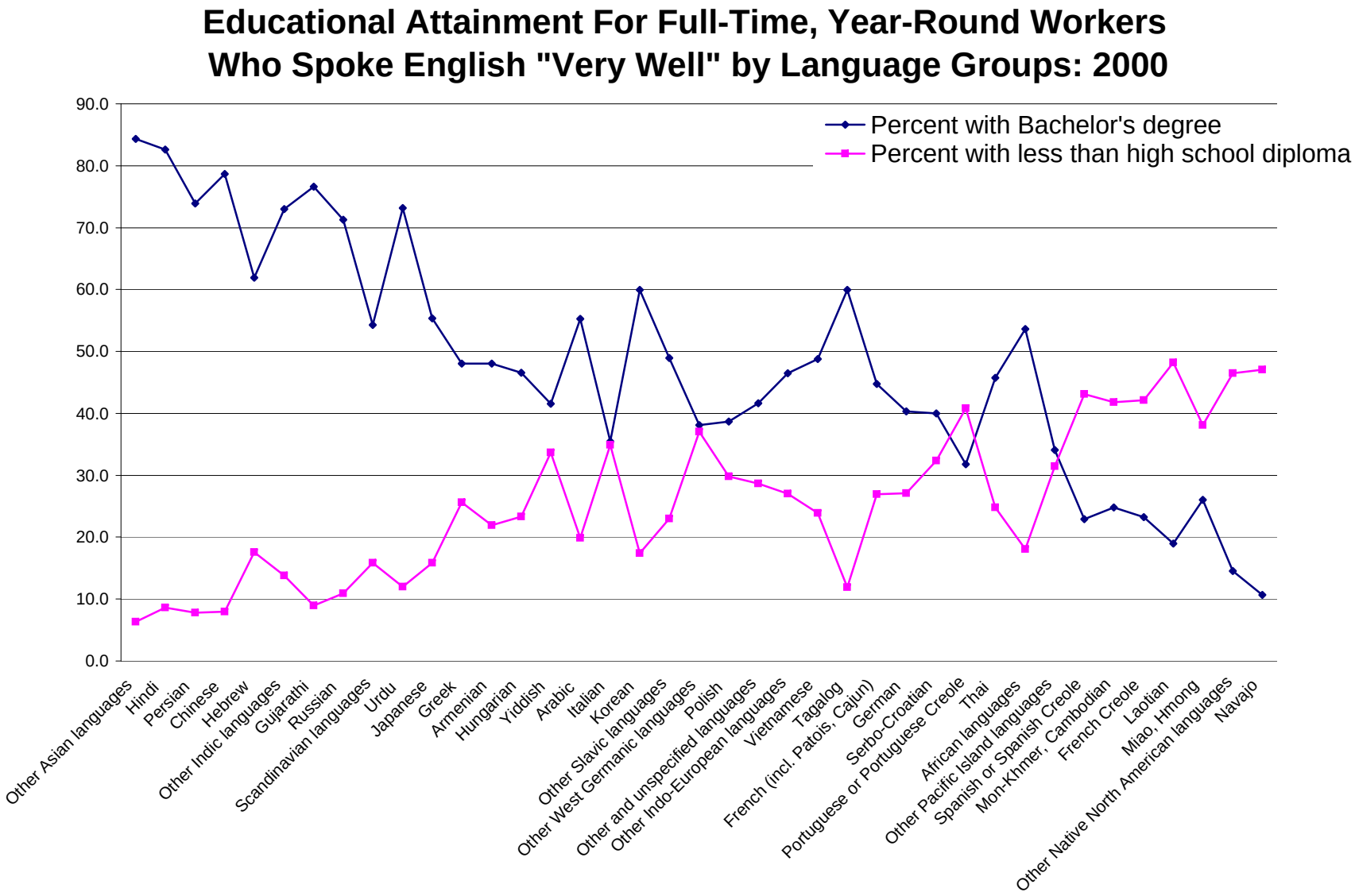
* English ability of "Not at all" for language groups with less than 50 sample cases are not shown.
Source: U.S. Census Bureau, Census 2000.

Figure 4.



* English ability of "Not at all" for language groups with less than 50 sample cases are not shown.
Source: U.S. Census Bureau, Census 2000.

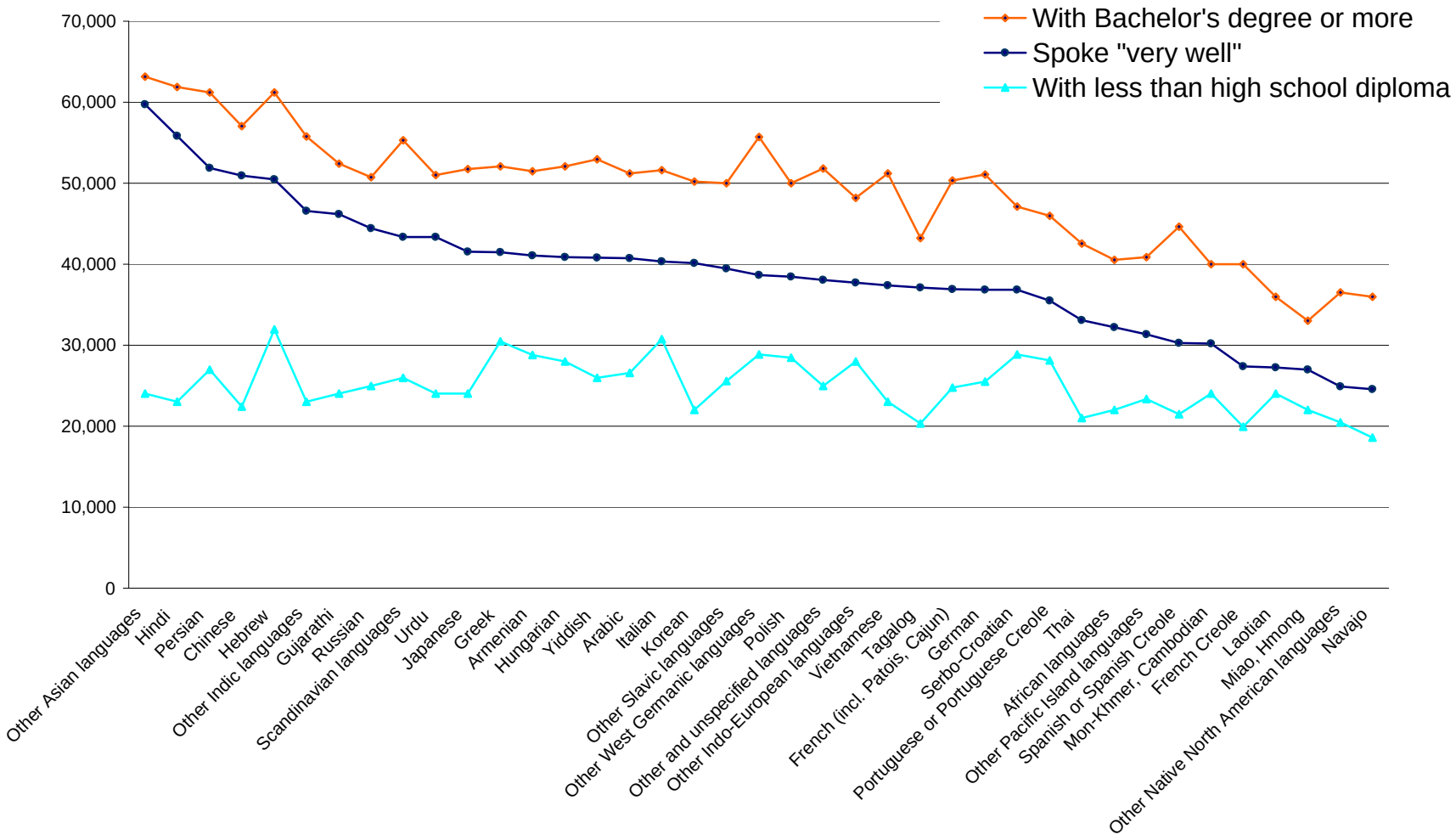
Figure 5.



Source: U.S. Census Bureau, Census 2000.

Figure 6.

Median Annual Earnings for Full-Time, Year-Round Workers Who Spoke English "Very Well" by Education Level: 2000



Source: U.S. Census Bureau, 2000 Census.

Appendix Table A. Median 1999 Annual Earnings of Full-Time, Year-Round Workers by Language Spoken at Home and Ability to Speak English

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see http://www.census.gov/prod/cen2000/doc/sf3.pdf]

Language	Number in the labor force	Total Earnings	Ability to speak English			
			Very well	Well	Not well	Not at all
Ages 25 and over						
Speak only English	68,863,931	$35,217	(X)	(X)	(X)	(X)
Speak other language	12,264,635	$29,600	$34,251	$27,242	$20,956	$16,315
Spanish or Spanish Creole	6,697,903	$25,726	$30,270	$24,560	$19,697	$16,105
Other Indo-European languages						
French (incl. Patois, Cajun)	492,111	$35,953	$36,928	$31,302	$32,257	$32,000 *
French Creole	127,859	$24,274	$27,415	$22,537	$17,355	$16,000 *
Italian	277,400	$39,024	$40,320	$35,758	$33,310	$32,000 *
Portuguese or Portuguese Creole	176,079	$31,504	$35,531	$29,768	$25,340	$24,000 *
German	419,742	$36,492	$36,851	$34,097	$35,718	$34,000 *
Yiddish	20,096	$38,613	$40,826	$30,000 *	$30,000 *	--
Other West Germanic languages	67,666	$36,915	$38,649	$30,310	$32,000 *	--
Scandinavian languages	45,651	$42,401	$43,386	$38,252	$38,000 *	--
Greek	113,585	$40,016	$41,459	$33,780	$29,477	$32,000 *
Russian	195,872	$37,381	$44,461	$35,807	$25,519	$21,000 *
Polish	188,153	$34,076	$38,434	$32,013	$26,957	$24,000 *
Serbo-Croatian	66,064	$29,979	$36,850	$26,836	$21,639	$20,000 *
Other Slavic languages	72,666	$35,432	$39,459	$31,317	$25,438	$21,000 *
Armenian	44,122	$35,977	$41,074	$30,189	$24,051	$17,000 *
Persian	99,056	$46,879	$51,901	$34,794	$25,000 *	--
Gujarathi	81,294	$38,346	$46,202	$27,827	$19,675	$15,000 *
Hindi	118,738	$51,086	$55,814	$31,487	$21,575	--
Urdu	71,606	$38,667	$43,361	$26,710	$22,000 *	--
Other Indic languages	137,588	$37,736	$46,555	$27,116	$21,016	$18,000 *
Other Indo-European languages	89,975	$34,034	$37,718	$30,157	$25,385	$22,300 *
Asian and Pacific Island languages						
Chinese	647,001	$38,391	$50,953	$37,337	$21,317	$14,000 *
Japanese	119,876	$41,765	$41,519	$42,688	$41,464	$34,000 *
Korean	247,633	$32,851	$40,146	$33,000	$26,763	$22,000 *
Mon-Khmer, Cambodian	39,465	$25,942	$30,218	$26,136	$21,000 *	$18,000 *
Miao, Hmong	20,554	$24,193	$27,000 *	$25,000 *	$20,000 *	$18,000 *
Thai	39,727	$30,252	$33,116	$28,258	$24,000 *	--
Laotian	42,963	$25,604	$27,279	$26,505	$22,000 *	$20,000 *
Vietnamese	313,306	$28,594	$37,410	$30,419	$20,955	$17,000 *
Other Asian languages	146,620	$53,324	$59,753	$38,224	$23,000 *	$30,000 *
Tagalog	453,835	$34,747	$37,107	$27,868	$22,616	$22,000 *
Other Pacific Island languages	87,084	$29,441	$31,313	$26,404	$22,235	$24,000 *
Other languages						
Navajo	32,349	$24,066	$24,566	$22,285	$20,000 *	--
Other Native North American languages	43,130	$24,467	$24,928	$22,217	$25,000 *	--
Hungarian	32,329	$38,389	$40,847	$32,008	$28,000 *	--
Arabic	166,643	$36,691	$40,738	$28,729	$25,308	$24,000 *
Hebrew	58,111	$48,939	$50,463	$41,432	$35,000 *	--
African languages	137,330	$30,582	$32,206	$24,789	$21,000 *	$18,000 *
Other and unspecified languages	33,453	$32,065	$38,020	$27,261	$20,000 *	$15,000 *

* Median not interpolated. Based on Proc Univariate SAS procedure and rounded to two significant digits.

-- English ability for language groups with less than 50 sample cases not shown.

Source: U.S. Census Bureau, Census 2000, Summary Edited Detail File.