

U.S. Department of Education  
NCES 2006-004

## Qualifications of Public Secondary School History Teachers, 1999–2000

Studies of the qualifications of elementary and secondary school teachers have focused on whether or not teachers have educational backgrounds (a postsecondary major/minor or equivalent) and state certification that match the subjects they teach (Ingersoll 1999; Seastrom et al. 2002). Teachers are described as “in-field” or “out-of-field” based on the presence or absence of a postsecondary major and state certification in the subject taught. However, among teachers who are out of field, further analysis can show the extent to which their training is related to or distant from the field in which they teach.<sup>1</sup> To the extent that out-of-field teachers differ in the subjects in which they have been trained, teachers may differ in the useful knowledge they bring to instruction.

This Issue Brief presents a measure of teacher qualifications that includes additional detail on the educational backgrounds and certifications of out-of-field teachers. The focal subject for the Issue Brief is history/world civilization (called history in this Issue Brief) at the secondary level. History was selected because of its high enrollment rates: 90 percent of 1998 high school graduates had taken at least 1 year of history at the secondary level (Roey et al. 2001).<sup>2</sup> For each qualification—postsecondary major/minor and state certification—teachers are classified first by whether or not they have the qualification in history. Then, teachers lacking the qualification in history are classified by presence of the qualification in other subjects.<sup>3</sup> These subjects are grouped by similarity to each other in terms of subject matter and skills. The list of subjects is taken from Seastrom et al. (2002), the most recent National Center for Education Statistics (NCES) Statistical Analysis Report on out-of-field teaching.<sup>4</sup> Certification measures used in the report did not differentiate between history and other social sciences and so certification is reported for social studies, including history. Teachers are classified first in terms of educational background and certification separately (table 1) and then classified based on the combinations of their postsecondary majors/minors and certification (table 2). The Issue Brief makes no judgment about which subjects are further out of field than others, but provides the information that allows the reader to make such an assessment.

Data are drawn from the NCES 1999–2000 Schools and Staffing Survey (SASS) teacher and school questionnaires. The sample used in the analysis includes public school teachers who reported teaching predominately in the middle or high school grades (called “secondary level” in the balance of the Issue Brief) and teaching “history” or “world civilization” to at least one student.<sup>5</sup> Information on teachers’ qualifications and grade

level and number of students are drawn from teachers’ reports. Findings are reported in terms of the percentage of history students taught by teachers of various qualifications (see, also, Seastrom et al. 2002).

Estimates are reported separately for students in each of four school-level poverty categories based on the percentage of students eligible for free or reduced-price lunch. SASS schools were asked to report the number of students eligible for free and reduced-price lunch, as well as their total school enrollment. Each category includes approximately 25 percent of the sample: less than 10 percent of students in school qualifying for free or reduced-price lunch, 10–25 percent, 25–50 percent, and more than 50 percent. This allows the Issue Brief to address the extent to which students in high and low poverty schools experience more or less out-of-field teaching in history and to explore the variation in out-of-field teachers’ qualifications according to school poverty.

### Majors, Minors, and Certifications Reported Separately

*What proportion of history students has a teacher with a major or minor in history?* Fewer than half (45 percent) of history students at the secondary level in 1999–2000 were taught by teachers who had a postsecondary major or minor in history (table 1). In 73 percent of the cases in which students’ teachers lacked a history major or minor, however, the teacher had a major or minor in another social science. At each school poverty level, the majority of students of out-of-field teachers had a teacher with a major or minor in another social science.

*What proportion of history students has a teacher with a certification in history?* Overall, 86 percent of secondary-level history students were taught by a teacher who had a state certification in social studies (including history). Students in the highest poverty schools were the least likely to have a teacher with an in-field certification (76 percent in the more than 50 percent poverty category compared with 89 percent in the less than 10 percent category, 86 percent in the 10–25 percent category, and 87 percent in the 25–50 percent category). Of the 14 percent of history students who were taught by teachers without an in-field certification, 40 percent of students had teachers with no certification at all. In the highest poverty schools, 12 percent of all secondary-level history students were taught by a teacher with no certification at all (52 percent of the 24 percent of students in these schools with teachers lacking a social studies certification).

**Table 1. Percentage of public school students in history/world civilization classes taught by secondary-level teachers, by percentage of students in the school qualifying for free or reduced-price lunch, and by subject field of teachers' postsecondary majors, minors, and certification: Academic year 1999–2000**

Teacher's subject field of major, minor, or certification	Total	Percent free/ reduced-price lunch			
		<10%	10-25%	25-50%	>50%
<b>Major or minor in history</b>	<b>44.9</b>	<b>52.5</b>	<b>41.3</b>	<b>40.0</b>	<b>45.7</b>
Major in history	37.4	43.0	36.9	32.7	36.2
Minor in history	7.8	9.9	4.7	7.7	9.5
<b>No major or minor in history</b>	<b>55.1</b>	<b>47.5</b>	<b>58.7</b>	<b>60.0</b>	<b>54.3</b>
Major or minor in a social science	72.8	79.9	66.5	68.8	81.3
Major or minor in:					
Art or music	4.1!	2.3!	3.2!	7.2!	2.5!
Elementary education	13.0	7.1	19.6	12.5!	10.6
English	13.0	14.0	8.6!	18.3	10.1
Foreign language, bilingual education, or English as a Second Language	5.8	2.0!	8.4	7.6!	3.6!
Mathematics	2.3!	0.6!	6.4!	0.5!	0.8!
Natural science	4.0	2.9!	4.6!	4.1	4.3
Other education (counseling, administration, etc.)	17.6	16.0	24.5	15.4!	10.9
Physical education	11.9	7.3!	11.3	14.9!	15.1
Secondary education	19.4	21.0	13.5	24.4	19.0
Special education	6.0	5.5	5.5	7.9	3.8!
Other subject	7.2	6.9!	5.2	10.3	6.0!
No major or minor	0.1	#	0.2!	0.1!	0.3!
<b>Certification in social studies (including history)</b>	<b>85.6</b>	<b>89.1</b>	<b>86.1</b>	<b>86.8</b>	<b>76.2</b>
<b>No certification in social studies (including history)</b>	<b>14.4</b>	<b>10.9</b>	<b>13.9</b>	<b>13.2</b>	<b>23.8</b>
Certification in:					
Art or music	3.8	3.3!	5.2!	2.1!	4.5!
Elementary education	4.3!	4.8!	3.3!	3.5!	5.6!
English	11.0	3.1!	18.6!	7.1	13.4
Foreign language, bilingual education, or English as a Second Language	5.1	3.9!	7.2!	4.7!	4.2!
Mathematics	5.9!	0.4!	19.0!	1.7!	0.8!
Natural science	5.2!	4.5!	1.7!	14.6!	0.6!
Physical education	5.1	0.8!	1.7!	15.2	2.5!
Special education	14.9	13.0!	18.9!	16.2	11.1
Other subject	13.1	11.9!	11.5	15.3	13.9
No certification	39.5	61.5	21.1	27.4	51.9

# Rounds to zero.

! Interpret data with caution: Standard error is more than one-third as large as the estimate.

NOTE: Secondary-level teachers include teachers who taught students in grades 5–12; teachers who taught in grades 5–9 who identified themselves as elementary or special education teachers were not included. Detail may not sum to totals because of rounding. Details below: "No major or minor in history" and "No certification in social studies" do not sum to totals because they are not percentages of the table total, but percentages of the category ("No major or minor in history" or "No certification in social studies"); they do not add to 100 percent, because teachers could report majors/minors or certifications in multiple subjects. Not all apparent differences in this table are statistically significant. Standard errors are available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006004>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1999–2000 "Public School Survey," "Public Charter School Survey," "Public Teacher Survey," and "Public Charter Teacher Survey."

## Majors, Minors, and Certifications Reported in Combinations

*Students of teachers with a certification in social studies.* Forty percent of all secondary-level history students had a teacher with both a state certification in social studies and a major or minor

in history/world civilization (table 2). Students in the lowest poverty schools were more likely than students in the two highest school poverty categories to have teachers with this combination of credentials (47 percent in the less than 10 percent category, compared with 36 percent in the 25–50 percent category and 35 percent in the more than 50 percent category).

An additional 46 percent of secondary-level history students had teachers with certification in social studies but no major or minor in history. Of these students, 80 percent were taught by teachers with a major or minor in another social science (i.e., 37 percent of all students were taught by teachers with both a certification in social studies and a major or minor in a social science other than history).

*Students of teachers with no certification in social studies.* Overall, 9 percent of secondary-level history students were taught by a teacher with neither a certification in social studies nor a major or minor in history. History students in the highest poverty schools were more likely than those in the lowest poverty schools to have teachers with neither a history major nor a social studies certification (13 percent in the more than 50 percent category compared with 6 percent in the less than 10 percent category). However, 68 percent of those students in the highest poverty schools with a teacher lacking both a certification in social studies and a major or minor in history were taught by a teacher who did have a major or minor in another social science. Of all secondary-level history students, 5 percent were taught by a teacher with a major or minor in history but without certification in history.

## Conclusion

Measures of out-of-field teaching that report only the absence or presence of educational and certification qualifications provide important but incomplete information about student exposure to teachers with differing qualifications in the subjects they teach. For subjects like secondary-level history, in which more than half of students have teachers with an out-of-field major or minor, almost 15 percent have teachers with an out-of-field certification, and almost 10 percent have teachers lacking either an in-field certification or in-field major or minor; it is useful to examine in more detail what certifications and postsecondary majors and minors teachers actually have. This Issue Brief reported the combination of certifications and majors and minors to which secondary-level history students are exposed and how these qualifications vary across schools with differing levels of student poverty. Students in the lowest poverty schools were the least likely to have a teacher with both an out-of-field certification and an out-of-field major or minor. Students of teachers lacking a major or minor in history were more likely to be taught by a teacher with a major or minor in another social science than by a teacher with a major or minor in any other subject. In this scenario, students in the highest poverty schools were at least as likely as students in all other school poverty categories to have a teacher with this educational background.

Of course, certification and postsecondary education are not the only routes through which teachers can gain subject matter expertise in the subjects they teach. Teachers may bring other professional and life experiences that provide them the subject matter grounding needed to teach effectively. Future data collections may address these issues.

**Table 2. Percentage of public school students in history/world civilization classes taught by secondary-level teachers, by percentage of students in the school qualifying for free or reduced-price lunch, and by combinations of teachers' postsecondary majors, minors and certification subject fields: Academic year 1999-2000**

Teacher's combination of major/ minor and certification	Total	Percent free/ reduced-price lunch			
		<10%	10-25%	25-50%	>50%
<b>Certification in social studies (including history)</b>	<b>85.6</b>	<b>89.1</b>	<b>86.1</b>	<b>86.8</b>	<b>76.2</b>
<b>And major or minor in history</b>	<b>39.8</b>	<b>47.2</b>	<b>38.4</b>	<b>36.0</b>	<b>35.0</b>
Major in history	34.2	40.8	34.2	30.2	28.9
Minor in history	5.9	6.8	4.4	6.2	6.1
<b>And no major or minor in history</b>	<b>45.8</b>	<b>41.9</b>	<b>47.7</b>	<b>50.8</b>	<b>41.2</b>
Major or minor in other social science	79.9	85.7	75.9	76.1	85.4
Major or minor in:					
Art or music	3.0	1.6	0.5	7.4	1.5
Elementary education	11.8	7.0	18.6	10.2	10.1
English	13.3	13.7	7.4	20.3	9.7
Foreign language, bilingual education, or English as a Second Language	6.1	1.2	9.9	8.2	2.9
Mathematics	0.9	0.7	2.3	0.1	0.4
Natural science	3.2	3.3	2.4	3.2	4.5
Other education (counseling, administration, etc.)	18.1	16.0	25.1	16.7	10.7
Physical education	12.1	7.3	12.8	13.9	15.8
Secondary education	20.8	22.5	15.3	23.6	23.1
Special education	3.2	3.2	2.1	4.9	1.9
Other subject	6.2	3.0	3.8	10.9	7.1
No major or minor	0.1	#	0.2	#	#
<b>No certification in social studies (including history)</b>	<b>14.4</b>	<b>10.9</b>	<b>13.9</b>	<b>13.2</b>	<b>23.8</b>
<b>And major or minor in history</b>	<b>5.1</b>	<b>5.3</b>	<b>3.0</b>	<b>4.0</b>	<b>10.7</b>
Major in history	3.2	2.2	2.7	2.5	7.3
Minor in history	1.9	3.1	0.3	1.5	3.4
<b>And no major or minor in history</b>	<b>9.3</b>	<b>5.6</b>	<b>11.0</b>	<b>9.2</b>	<b>13.1</b>
Major or minor in other social science	37.8	36.6	25.8	28.2	68.4
Major or minor in:					
Art or music	9.2	7.3	15.0	6.3	5.6
Elementary education	18.8	7.5	23.9	25.6	11.9
English	11.9	15.7	14.1	7.2	11.4
Foreign language, bilingual education, or English as a Second Language	4.3	7.4	1.8	4.2	5.9
Mathematics	9.3	0.2	24.1	2.6	2.2
Natural science	7.9	0.2	14.1	8.8	3.7
Other education (counseling, administration, etc.)	15.0	16.5	21.9	8.4	11.6
Physical education	11.1	6.8	4.6	20.3	13.0
Secondary education	12.6	9.7	5.7	28.5	6.1
Special education	19.6	22.9	20.4	24.6	9.9
Other subject	12.5	36.3	11.3	6.7	2.6
No major or minor	0.4	#	0.1	0.6	1.1

# Rounds to zero.

! Interpret data with caution: Standard error is more than one-third as large as the estimate.

NOTE: Secondary-level teachers include teachers who taught students in grades 5-12; teachers who taught in grades 5-9 who identified themselves as elementary or special education teachers were not included. Detail may not sum to totals because of rounding. Details below "And no major or minor in history" do not sum to totals because they are not percentages of the table total, but percentages of the category ("and no major or minor in history"); they do not add to 100 percent, because teachers could report majors/minors or certifications in multiple subjects. Not all apparent differences in this table are statistically significant. Standard errors are available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006004>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1999-2000 "Public School Survey," "Public Charter School Survey," "Public Teacher Survey," and "Public Charter Teacher Survey."

## Endnotes

<sup>1</sup> Research on biology and physics teachers has examined courses taken within science, but has not differentiated among teachers who have taken other science coursework in the place of subject-specific coursework and those who have taken other science coursework in addition to subject-specific coursework; nor has other research examined course-taking beyond science (see Wood 2002).

<sup>2</sup> Ninety percent of high school graduates took at least one course in American history, 60 percent took at least one course in world history, 9 percent in western history/civilization, and 8 percent in non-western history.

<sup>3</sup> Categories relating to nonhistory qualifications are not mutually exclusive.

<sup>4</sup> Courses considered history include history and world civilization; courses considered other social sciences include social studies, civics, economics, geography, political science/government, sociology/social organization, and other social science. Majors and minors considered history include history; majors and minors considered other social sciences include social studies/social science education, American Indian/North American studies, public administration or service, other area or ethnic studies, economics, political science and government, psychology, sociology, and other social sciences. The list of subjects used in this Issue Brief differs from the Seastrom et al. (2002) list in two ways. First, major and minor categories were added for other education (counseling and guidance, curriculum and instruction, educational administration, educational psychology, and other education), secondary education, other subjects, and no subjects. Second, the foreign languages and bilingual education/English as a Second Language categories were combined into a single category. There were too few cases in which out-of-field history/world civilization teachers had qualifications in these subjects to provide an accurate estimate of their prevalence separate from the other subjects category.

<sup>5</sup> The sample included 2,369 public school teachers.

## References

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The Issue Brief series presents information on education topics of current interest. All estimates shown are based on samples and are subject to sampling variability. All differences discussed in the text are statistically significant at the .05 level as measured by Student's two-tailed *t* tests. In the design, conduct, and data processing of National Center for Education Statistics (NCES) surveys, efforts are made to minimize the effects of nonsampling error, such as item nonresponse, measurement error, data processing error, or other systematic error. For more information on the Schools and Staffing Survey, visit <http://nces.ed.gov/surveys/sass>.

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