

Who Are the National Board Certified Teachers?

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Overview

The National Board for Professional Teaching Standards (NBPTS) is a non-profit organization formed in 1987 to advance rigorous standards for teaching and to provide a voluntary system certifying teachers who meet these standards. Teachers seeking National Board Certification (NBC) must hold a bachelor's degree, have completed three full years of teaching, and possess a valid state teaching license for that period of time. Beginning in 1993-94, NBPTS began to issue NBC to applicants that met established criteria. Successful applicants are required to submit a portfolio demonstrating their teaching practice and to demonstrate content knowledge for applicants' chosen certificate area. The certification process can take up to three years. As indicated in Table 1, by 2006, there were approximately 55,000 National Board Certified Teachers (NBCTs), representing about 3 percent¹ of all NBC-eligible teachers in the United States. Table 1 also shows differences in NBCTs among states.

The primary purpose of this report is to describe the profile of teachers who apply for and obtain NBC. To provide some context for this profile, the report first provides a description of the characteristics of all teachers in the United States who had met the NBC eligibility requirements as of 2003-04. The report then compares the profile of those teachers who apply for and obtain NBC to the nationally representative sample of NBC-eligible teachers. Next, the report examines differences between those who have successfully obtained NBC and those who have not been successful.

Another purpose of this report is to investigate whether a secondary data source could be used to further study NBCTs. Therefore, this report also compares the population of all NBCTs

¹ As of 2006, there were 55,324 NBCTs. However, it is possible that not all of these individuals are currently teaching since this number represents the total number of certificates issued by NBPTS to date. Therefore, the percent of the current teaching force in the United States who hold an NBC cannot be precisely calculated.

to a sub-sample of NBCTs contained within a nationally representative sample of college graduates. Finally, using this secondary data source, a comparison of time in the field for NBCTs versus non-NBCTs is presented.

Data

The data used in this report comes from three sources. The first is the Schools and Staffing Survey (SASS), administered by the National Center of Education Statistics (NCES) at the U.S. Department of Education. SASS collects data on teacher and administrator characteristics, school programs, and general conditions in schools. SASS also gathers information on many other topics such as perceptions of school personnel about school climate and problems in schools, compensation, and hiring practices. Questionnaires are also administered to principals, schools and districts. This report uses data from the 2003-04 SASS administration which contains approximately 51,000 teachers.

The second source of data for this report is the Baccalaureate and Beyond Longitudinal Study of 1992-93 (B&B 93:03), also administered by NCES. The B&B 93:03 focuses on the post-baccalaureate experiences of college students who graduated in 1992-93. Potential sample members were identified through the cross-sectional National Postsecondary Aid Study (NPSAS) of 1993. The sub-sample eligible for the B&B 93:03 study consisted of approximately 11,200 college graduates who received their bachelor's degree between July 1992 and June 1993. Students eligible for the B&B study were asked questions about their plans for the future, particularly expectations for employment and graduate education. Follow-up studies were conducted in 1994 (B&B 93:94), 1997 (B&B 93:97), and 2003 (B&B 93:03). In the follow-up studies, information was obtained about post-baccalaureate experiences including information about employment experiences such as occupation, salary, and job satisfaction.

A unique focus of the B&B: 93/03 study was on graduates who had considered or entered teaching. Approximately 2,000 of the college graduates in the sample had taught at some point between 1993 and 2003. These teachers were asked about preparation, certification, grades/subjects taught, job satisfaction, and reasons for staying or leaving teaching. B&B 93:03 did not ask about National Board Certification status until the third follow-up in 2003. In the 2003 follow-up, respondents who had previously indicated that they were certified or licensed to teach at the K-12 level were asked “if they were working toward or had already earned a National Board Certificate (issued by the National Board for Professional Teaching Standards (NBPTS).” Of those that were asked, 45 indicated that they were working toward NBC and another 104 college graduates in the sample indicated that they had obtained NBC.

The third source of data is a data file from the National Board for Professional Teaching Standards (NBPTS). The data file contains background characteristics and test information for teachers who have applied for NBC certification over the life of the program including whether or not each teacher successfully obtained certification. All of the 87,112 fully eligible candidates for NBC beginning with the initial cycle in 1993 through 2006 are included in the data file. Teacher background information such as gender, race/ethnicity, age, years of teaching experience, educational attainment, and level of their school were self-reported or based on self-reports by the applicants. The urbanicity of applicants’ schools were provided to NBPTS by a 3rd party based on school information provided by the applicant.² Unlike the cross-sectional SASS data, the NBPTS is cumulative in nature so caution could be taken in making comparisons between the different data sources used in this report. It is likely that some of these NBCTs contained in the data are no longer teaching.

² One potential limitation of the urbanicity information contained in the NBPTS database is that while NBPTS asks candidates to update school information, the urbanicity of applicants’ school may not have been updated as NBCTs change schools or possibly leave teaching.

To prepare data files for use, extreme values were removed for continuous variables such as teacher age and years of experience. For instance, teachers under the age of 20 and over the age of 75 were recoded as missing data. The degree to which data was missing or invalid for the variables used in this report was also assessed. Where possible, variables were recoded to obtain consistency and to make comparisons as meaningful as possible.

Both the SASS and B&B are samples that produce estimates with a margin of error. The standard errors for the estimates used in this report are very small (generally less than one percent) because the samples, as described above, are so large. In the tables provided below, no standard errors are reported.

1. What are the characteristics of NBC-eligible teachers in general – race, gender, years of education, years of experience, teaching setting, and longevity in the teaching field?

Data source: Schools and Staffing Survey, 2003-04, National Center for Education Statistics

The purpose of Table 2 and Table 3 is to provide some context for interpreting the results found in the tables that follow it. Table 2 contains descriptive statistics about teachers employed in both public and private schools in the United States during the 2003-04 school year who were eligible for NBC. Of the nearly 3.1 million teachers who had met the eligibility requirements, 75.9 percent were female while 24.1 percent were male. As indicated in the table, most NBC-eligible teachers (84.7 percent) were White. Black teachers were the largest minority group represented at 7.1 percent, followed by Hispanic teachers at 5.6 percent. A Master's degree had been earned by 49.8 percent of NBC-eligible teachers while 1.2 percent had earned a doctorate. The mean age of NBC-eligible teachers employed in public and private schools was 44 years. The average number of years of teaching experience was 15.8.

As Table 3 indicates, 52.6 percent of NBC-eligible teachers were employed in schools in suburban communities while 28.8 percent were working in urban settings and 18.6 percent taught in schools in rural areas. About one-half of teachers were working in elementary schools while 17 percent and 26 percent were employed in middle schools and high schools respectively. Seven percent of teachers were teaching in schools that serve students across multiple levels.

2. What are the characteristics of teachers who apply for board certification? How do they compare to the characteristics of NBC-eligible teachers in general?

Data source: NBPTS applicant database and SASS

In comparison to the national sample of NBC-eligible teachers in 2003-04 (Table 2), teachers who applied for NBC through 2006 were more likely to be female. As indicated in Table 4, 88 percent of teachers who applied for NBC during this time span were female compared to 75.9 percent nationally. In terms of racial representation, the proportion of different racial groups who applied for NBC through 2006 was relatively close to that of the national sample of teachers. Blacks were somewhat more represented in the group of teachers who applied for NBC (9.5 percent versus 7.1 percent nationally) while for Hispanics the reverse was true (4.0 percent versus 5.6 percent nationally).

Teachers who applied for NBC through 2006 were more likely to have a Master's degree (57.1 percent) than NBC-eligible teachers nationwide (49.8 percent). NBC applicants during this time frame were also younger and less experienced (40.6 and 12.4 years, respectively), on average, than teachers in the national sample (44 and 15.8 years, respectively).

Table 5 indicates that NBC applicants were fairly evenly distributed across rural, suburban and urban school though there were slightly more than one-third of applicants located in urban schools and slightly less than one-third located in rural schools. By contrast, the

majority of teachers were employed in suburban schools (52.6 percent) in the national sample of NBC-eligible teachers with only 18.6 percent teaching in schools in rural areas. It is possible that the higher representation of teachers from rural schools among the NBC applicants is a function of the over-representation of NBC teachers in certain states (see Table 1). For instance, teachers in Florida, North Carolina and South Carolina comprised 46 percent of all NBC applicants through 2006. These states could have proportionately more rural schools than other states. Finally, consistent with findings from the national sample, the majority of applicants worked in elementary and/or pre-schools (52.4 percent).

3. What are the characteristics of teachers who obtain board certification (NBCTs)?

What are the characteristics of teachers who are unsuccessful in their attempt to obtain board certification, and how do the successful candidates compare to those who are unsuccessful?

Data source: NBPTS applicant database

Table 6 and Table 7 contain the rates at which various subgroups of applicants were successful in obtaining NBC. The tables also present distributions of the characteristics of teachers who were successful in obtaining NBC and those who are not. Ideally, it would be useful to know what proportion of teachers and various subgroups of teachers in the United States apply for and obtain NBC but, as described previously, the inconsistencies across different data sets used for this analysis do not allow for the precise calculation of these percentages. Success rates were calculated by dividing the number that passed the NBPTS assessment by the number of applicants for each group.

Overall, 63.5 percent of applicants were successful in obtaining NBC (as seen in Table 1). This rate varies when examined for different subgroups of applicants. Table 6 shows that female applicants were successful 64.1 percent of the time compared to 59.1 percent for males. White applicants succeeded at a rate of 67.9 percent followed by Asian applicants at 61.3 percent and Pacific Islanders at 57 percent. American Indian or Alaskan natives were successful in obtaining NBC 54.9 percent of the time while Hispanic applicants succeeded at a rate of 54.4 percent. Black applicants had a success rate of only 31.4 percent. Teachers working in suburban schools succeeded at a rate of 75.6 percent while teachers in rural schools and urban schools had success rates of 68.2 percent and 65.6 percent, respectively. Finally, teachers with assignments in high schools were successful 67.1 percent of the time compared to 62.7 percent for elementary school teachers and 60.6 percent for teachers working in middle schools.

Compared to the national sample of NBC-eligible teachers in 2003-04 presented in Table 2, teachers who obtained NBC through 2006 were more likely to be female than teachers in the national sample (88.8 percent versus 75.9 percent nationally). White applicants who obtained NBC were over-represented relative to the national sample of teachers (90.1 percent versus 84.7 percent nationally). In contrast, Black and Hispanic applicants who obtained NBC through 2006 were under-represented relative to the national sample of teachers. Blacks comprised 4.7 percent of NBCTs versus 7.1 percent of NBC-eligible teachers nationwide. Similarly, Hispanics comprised only 3.4 percent of NBCTs but 5.6 percent of NBC-eligible teachers nationwide. Applicants who obtained NBC through 2006 were more likely to obtain a Master's degree than teachers in the national sample (60.0 percent versus 49.8 percent nationally). In addition, teachers who obtained NBC through 2006 were more likely to be younger than teachers in the

national sample (40.3 years versus 44 years nationally) and less experienced (12.6 years versus 15.8 years nationally).

The characteristics of those who obtained NBC through 2006 versus that of unsuccessful applicants were similar in gender, age, and teaching experience. However, there were substantial differences among racial/ethnic groups, rates of educational attainment, and the urbanicity of teachers' schools. Among successful applicants, approximately 90 percent of successful applicants were White and 4.7 percent of successful applicants were Black. In contrast, for teachers who did not obtain NBC, less than 75 percent were White and almost 18 percent were Black. Teachers with a Master's degree constitute 60 percent of the group that obtained NBC through 2006 but only 52 percent of the group that did not obtain NBC during this time frame. In terms of the type of setting in which teachers work, teachers in suburban schools were more likely to obtain NBC (35.9 percent) than teachers who were unsuccessful NBC applicants (26.8 percent).

4. **The B&B data allow for more in-depth analyses of NBCTs – does this sample appear to be representative of NBCTs in general, especially when compared with the characteristics of the full population of NBCTs in the NBPTS file?**

Data sources: Baccalaureate & Beyond Longitudinal Study, 1993:2003, National Center for Education Statistics and NBPTS applicant database

In general, analyses of the sub sample of NBCTs in the B&B relative to the population of NBCTs from the NBPTS database suggest that the B&B sub-sample does not appear to be representative of all NBCTs. In addition, estimates obtained from the B&B sub-sample are less reliable because of the small number of teachers that reported obtaining NBC. Only 104 teachers

in the B&B sample indicated that they had earned an NBC. Of those that were asked about National Board Certification, 9.6 percent indicated that they were either working toward NBC (2.9 percent) or had already earned it (6.7 percent). This is in contrast to an estimate of about 2 percent³ as measured by dividing the number of applicants from the NBPTS database by the number of teachers in the United States as measured by the SASS. This discrepancy is puzzling particularly given that the B&B sample of 1993 college graduates is considerably younger than the population of teachers in the NBPTS database.

The B&B 93:03 did not ask about National Board Certification status until the 3rd follow-up in 2003. In the 2003 follow-up, respondents who had previously indicated that they were certified or licensed to teach at the K-12 level were asked “if they were working toward or had already earned a National Board Certificate (issued by the NBPTS).” For the purposes of this analysis, “working toward” was assumed to be synonymous with “applicant” as used in the NBPTS data.

In terms of the representativeness of the B&B sample, there are several noteworthy differences between the NBCTs as identified in the B&B and those described earlier in this report from the NBPTS database. The NBPTS database is presumably more accurate as NBPTS is the organization issuing the certification and it keeps records on all applicants, not just a sample. Differences could be attributed to sampling error or to respondents misunderstanding the question in the B&B.

As indicated in Tables 8 and 9, compared to the characteristics of applicants who obtained NBC according to the NBPTS database (Table 6), the B&B sample contains a greater proportion of males (25.7 percent versus 11.2 percent from the NBPTS database), fewer Whites (84.6 percent versus 90.1 percent in the NBPTS database), more Blacks (7.8 percent versus 4.7

³ As indicated previously, this percentage cannot be precisely calculated.

percent in NBPTS database), and fewer teachers with advanced degrees (42.6 percent versus 61.6 percent in NBPTS database). Not surprisingly, the B&B sample is younger (35.2 years versus 40.3 years) and less experienced (8.9 years versus 12.6 years in NBPTS database). The B&B sample also has a greater proportion of teachers working in elementary schools (61.9 percent versus 51.8 in the NBPTS database).

5. If possible, using data from the B&B, compare time in the field for NBCTs and non-NBCTs.

Data source: Baccalaureate & Beyond Longitudinal Study, 1993:2003, National Center for Education Statistics

Using data from the B&B sample, it is possible to examine the extent of turnover between 1993 and 2003 for NBCT and non-NBCT teachers. However, there are limitations when examining turnover of NBCTs versus non-NBCTs because the data does not indicate when the NBC was obtained during a teacher's career. In other words, we don't know temporally what came first, the NBC or the teacher's career decision. A teacher having obtained NBC may very well be an indicator of a teacher's commitment to teaching as a career thus it would not be surprising for turnover rates to be lower for NBCTs.

While the majority of teachers in the B&B began teaching in 1993 or 1994, some did not do so until subsequent years. Therefore, turnover for NBCTs and non-NBCTs was considered for two groups of teachers: 1) those that started their initial teaching jobs between 1993 and 1995; and 2) those that started their initial teaching jobs between 1996 and 1999. If teachers were no longer teaching in 2003 they were labeled as "leavers" and those that remained in teaching were labeled as "stayers."

Table 10 presents teacher turnover rates as described above for both NBCTs and non-NBCTs. For both subgroups of teachers, NBCTs had lower rates of turnover than their non-NBCT peers. For teachers who started their initial teaching job between 1993 and 1995, 31.8 percent of NBCTs had left teaching by 2003 compared 35.6 percent for non-NBCTs. For teachers who started their initial teaching job between 1996 and 1999, 26 percent of NBCTs had left teaching by 2003 compared to 34 percent for non-NBCTs.

Table 1 - Number of eligible teachers and National Board Certification status nationwide and by state

State	Number of Teachers Eligible for NBC (2003-04)	Number of Applicants	Estimated Percent of Eligible Teachers – Applied for NBC	Number of Applicants - Successfully Obtained NBC	Percent of Applicants – Successfully Obtained NBC
<i>All States</i>	3,097,271	87,112	2.8	55,324	63.5
Alabama	50,361	1,606	3.2	1,096	68.2
Alaska	7,765	115	1.5	76	66.1
Arizona	49,792	527	1.1	346	65.7
Arkansas	34,929	1,034	3.0	585	56.6
California	273,548	5,493	2.0	3,645	66.4
Colorado	46,784	424	0.9	271	63.9
Connecticut	43,946	162	0.4	126	77.8
Delaware	7,858	496	6.3	348	70.2
District of Columbia	5,080	78	1.5	18	23.1
Florida	145,826	15,222	10.4	9,223	60.6
Georgia	94,765	3,695	3.9	2,335	63.2
Hawaii	13,482	210	1.6	125	59.5
Idaho	14,427	420	2.9	327	77.9
Illinois	137,972	3,381	2.5	1,985	58.7
Indiana	61,097	280	0.5	131	46.8
Iowa	39,045	681	1.7	527	77.4
Kansas	36,790	340	0.9	236	69.4
Kentucky	45,935	1,616	3.5	1,120	69.3
Louisiana	53,155	1,923	3.6	1,032	53.7
Maine	19,060	141	0.7	104	73.8
Maryland	54,617	1,394	2.6	823	59.0
Massachusetts	80,792	656	0.8	439	66.9
Michigan	96,307	458	0.5	213	46.5
Minnesota	60,596	422	0.7	285	67.5
Mississippi	31,729	3,600	11.3	2,550	70.8

(Table 1 continued)

State	Number of Teachers Eligible for NBC (2003-04)	Number of Applicants	Estimated Percent of Eligible Teachers – Applied for NBC	Number of Applicants - Successfully Obtained NBC	Percent of Applicants – Successfully Obtained NBC
Missouri	72,455	601	0.8	341	56.7
Montana	12,381	81	0.7	58	71.6
Nebraska	26,150	88	0.3	49	55.7
Nevada	18,324	420	2.3	277	66.0
New Hampshire	14,809	25	0.2	18	72.0
New Jersey	110,326	282	0.3	134	47.5
New Mexico	19,525	510	2.6	234	45.9
New York	220,229	1,177	0.5	690	58.6
North Carolina	84,467	17,812	21.1	11,325	63.6
North Dakota	9,498	54	0.6	25	46.3
Ohio	135,515	4,258	3.1	2,624	61.6
Oklahoma	43,544	2,341	5.4	1,567	66.9
Oregon	27,573	346	1.3	208	60.1
Pennsylvania	128,605	460	0.4	297	64.6
Rhode Island	13,674	393	2.9	253	64.4
South Carolina	45,086	7,363	16.3	5,075	68.9
South Dakota	11,157	80	0.7	58	72.5
Tennessee	61,139	431	0.7	236	54.8
Texas	257,771	547	0.2	317	58.0
Utah	21,208	193	0.9	106	54.9
Vermont	10,308	131	1.3	90	68.7
Virginia	83,409	1,872	2.2	1,134	60.6
Washington	61,985	1,784	2.9	1,307	73.3
West Virginia	21,824	432	2.0	290	67.1
Wisconsin	73,500	607	0.8	402	66.2
Wyoming	7,149	178	2.5	77	43.3

Table 2. Characteristics of NBC-eligible teachers in public & private schools in the United States, 2003-04

Gender	N	Percent
Females	2,351,640	75.9
Males	745,631	24.1
Race/Ethnicity		
American Indian or Alaskan Native	15,705	0.5
Asian	38,561	1.2
Black	220,627	7.1
Hispanic	173,263	5.6
Pacific Islander	5,030	0.2
White, not of Hispanic origin	2,622,844	84.7
Multiple races, non-Hispanic	21,241	0.7
Graduate degrees earned		
Master's	1,542,985	49.8
Doctorate	37,942	1.2
	Mean	Standard Deviation
Age	44.0	10.6
Years of teaching experience	15.8	9.9

Table 3. Characteristics of NBC-eligible teachers' schools in the United States, 2003-04

Urbanicity of school where teacher employed	N	Percent
Rural	577,138	18.6
Suburban	1,628,241	52.6
Urban	891,892	28.8
Level of school where teacher employed		
Elementary	1,552,143	50.1
Middle	521,918	16.9
High	807,563	26.1
Combined	215,647	7.0

Table 4. Characteristics of teachers who applied for National Board Certification

Gender	N	Percent
Females	76,661	88.0
Males	10,451	12.0
Race/Ethnicity		
American Indian or Alaskan	634	0.8
Asian	950	1.1
Black	8,002	9.5
Hispanic	3,343	4.0
Pacific Islander	142	0.2
White, not of Hispanic origin	71,341	84.5
Highest graduate degree earned		
Master's	49,381	57.1
Doctorate	1,406	1.6
	Mean	Standard Deviation
Age	40.6	9.14
Years of teaching experience	12.4	7.59

Table 5. Characteristics of National Board Certification applicants' schools

Urbanicity of school where applicant employed	N	Percent
Rural	17,101	31.8
Suburban	17,845	33.2
Urban	18,866	35.1
Level of school where applicant employed		
Pre-School/Elementary	45,136	52.4
Middle	17,866	20.8
High	23,056	26.8

Table 6. Characteristics of applicants by National Board Certification status

Gender	Applicant Success Rate	Obtained NBC		Did not obtain NBC	
		N	Percent	N	Percent
Females	64.1	49,143	88.8	27,518	86.6
Males	59.1	6,181	11.2	4,270	13.4
Race/Ethnicity					
American Indian or Alaskan	54.9	348	0.6	286	0.9
Asian	61.3	582	1.1	368	1.2
Black	31.4	2,515	4.7	5,487	17.9
Hispanic	54.4	1,818	3.4	1,525	5.0
Pacific Islander	57.0	81	0.2	61	0.2
White, not of Hispanic origin	67.9	48,460	90.1	22,881	74.8
Highest graduate degree earned					
Master's	66.8	33,002	60.0	16,379	51.9
Doctorate	62.7	882	1.6	524	1.7
		Mean	Standard Deviation	Mean	Standard Deviation
Age		40.3	9.05	41.1	9.28
Years of teaching experience		12.6	7.55	12.1	7.66

Table 7. Applicant success rates and characteristics of applicants' schools by National Board Certification status

Type of district where applicant employed	Applicant Pass Rate	Obtained NBC		Did not obtain NBC	
		N	Percent	N	Percent
Rural	68.2	11,670	31.1	5,431	33.3
Suburban	75.6	13,487	35.9	4,358	26.8
Urban	65.6	12,370	33.0	6,496	39.9
Level of school where applicant employed					
Elementary	62.7	28,312	51.8	16,824	53.5
Middle	60.6	10,828	19.8	7,038	22.4
High	67.1	15,482	28.3	7,574	24.1

Table 8. Characteristics of teachers who indicated either working toward or earning a National Board Certificate by 2003: B&B 93:03 sample

Gender	Working Towards NBC		Have Earned NBC	
	N	Percent	N	Percent
Females	4,060	72.7	9,528	74.3
Males	1,528	27.3	3,292	25.7
Race/Ethnicity				
American Indian or Alaskan Native	161	2.9	85	0.7
Asian or Pacific Islander	0	0.0	416	3.4
Black	834	14.9	942	7.8
Hispanic	149	2.7	415	3.4
White, not of Hispanic origin	3,492	62.5	10,205	84.6
Highest graduate degree earned				
Master's	2,190	46.2	4,961	41.8
Doctorate	0	0.0	95	0.8
	Mean	Standard Deviation	Mean	Standard Deviation
Age	36.8	6.75	35.2	5.05
Years of teaching experience	7.2	3.65	8.9	1.55

Table 9. Characteristics of teachers' schools who indicated either working toward or earning a National Board Certificate by 2003: B&B 93:03 sample

Type of district where applicant employed	N	Percent	N	Percent
Rural	1,112	23.5	3,161	37.2
Suburban	1,675	35.4	2,872	33.8
Urban	1,939	41.0	2,468	29.0
Level of school where applicant employed				
Elementary	2,602	51.0	5,050	61.9
Secondary	1,975	38.7	2,492	30.5
Combined	520	10.2	619	7.6

Table 10. Teacher Turnover Rates by 2003 by National Board Certification status

NBCTs	Stayers	Leavers	Total Teachers	Turnover Rate by 2003
Started initial teaching job between 1993 and 1995	6,073	2,838	8,911	31.8
Started initial teaching job between 1996 and 1999	1,703	599	2,302	26.0
Non-NBCTs	Stayers	Leavers	Total Teachers	Turnover Rate by 2003
Started initial teaching job between 1993 and 1995	94,541	52,275	146,816	35.6
Started initial teaching job between 1996 and 1999	31,619	16,288	47,907	34.0