

Do states have certification requirements for preparing general education teachers to teach students with disabilities? Experience in the Northeast and Islands Region





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**July 2010**

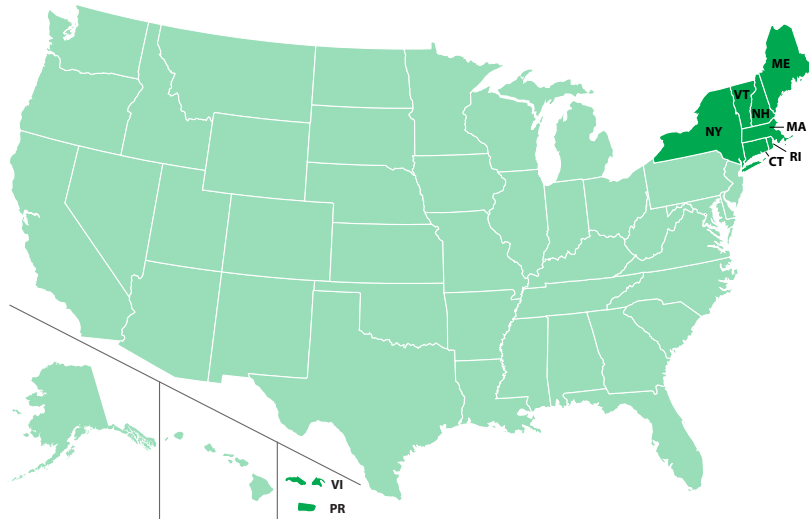
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Issues & Answers is an ongoing series of reports from short-term Fast Response Projects conducted by the regional educational laboratories on current education issues of importance at local, state, and regional levels. Fast Response Project topics change to reflect new issues, as identified through lab outreach and requests for assistance from policymakers and educators at state and local levels and from communities, businesses, parents, families, and youth. All Issues & Answers reports meet Institute of Education Sciences standards for scientifically valid research.

July 2010

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# Do states have certification requirements for preparing general education teachers to teach students with disabilities? Experience in the Northeast and Islands Region

**This report on teacher certification requirements in the Northeast and Islands Region finds that eight of the nine jurisdictions require some coursework in teaching students with disabilities for initial licensure of general education teachers.**

With more than half of children with disabilities being educated in the general education classroom, and with federal education law requiring improved learning outcomes for these students, preparing general education teachers to work effectively with all students is critical. This report on teacher certification requirements in the nine Northeast and Islands Region jurisdictions finds that eight of them require some coursework in teaching students with disabilities for initial licensure of general education teachers. It finds commonalities and differences both in how jurisdictions require general education teacher candidates to develop knowledge in special education and in the specific knowledge and skills required as part of teacher preparation.

Specifically:

- Four of the nine jurisdictions require teacher candidates to take a prescribed number of credit hours focused on special education or teaching students with exceptionalities; four others require approved professional preparation programs to demonstrate that teacher candidates develop knowledge and skills in this area, but do not specify how to meet the requirements.
- Two jurisdictions require general education teacher candidates to spend at least part of their student teaching experience working in classrooms with students with disabilities.
- Five jurisdictions use professional teaching standards to outline the knowledge, skills, and practices required of general education teachers to teach students with disabilities. All beginning and continuing teachers are expected to meet specific standards for teacher preparation, some of which address teaching students with disabilities.
- Eight special education content areas for teacher preparation were required by one or more jurisdictions in the region: understand the growth and development of

exceptional children; understand instructional design; adapt, differentiate, accommodate, or modify instruction; participate in field experiences with students with disabilities; prepare, implement, or evaluate Individualized Education Programs;<sup>1</sup> seek support or collaboration to assist students with disabilities; understand the legal and historical foundations of special education; and identify student learning differences.

Researchers used three data sources for the study: publicly available state education agency documents related to certification requirements for general education teachers, the National Association of State Directors of Teacher Education and Certification's web-based database of state certification requirements, and interviews with a state certification official in each of the nine jurisdictions.

State education agencies continue to review and update policies on teacher certification in teaching students with disabilities in the general education classroom. All the jurisdictions examined either have some requirements in place or are adopting such policies. Further research on how institutions of higher education interpret and apply state policy guidance

and on the extent to which state requirements are effective in ensuring adequate preparation of general education teachers to teach students with disabilities could be beneficial to state policymakers.

The study was requested by education policymakers and practitioners in the Northeast and Islands Region, who expressed interest in learning more about teacher preparation requirements for initial licensure of general education teachers that prepare educators to teach students with disabilities. Specifically, education officials from Maine and Puerto Rico requested information on current policies and pending changes to requirements, along with more detail on the specific content or program of study required by state education agencies.

**July 2010**

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#### Note

1. An Individualized Education Program is a written statement for each child with a disability that includes the child's current levels of academic achievement and functional performance, measurable annual goals, the services to be provided, an explanation of how the child will participate in the general education classroom, and a statement of accommodations for measuring achievement.

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# This report on teacher certification requirements in the Northeast and Islands Region finds that eight of the nine jurisdictions require some coursework in teaching students with disabilities for initial licensure of general education teachers.

## WHY THIS STUDY?

As reauthorized in 2004, the Individuals with Disabilities Education Act (IDEA) requires that children with disabilities be educated alongside children without disabilities and in the least restrictive environment (34 CFR 300.114[a] [2]). Children and young adults (ages 3–21) receiving special education services in public schools rose from 3.7 million students (about 5 percent

of the total) in 1976 to about 6.7 million students (9 percent) in 2007 (U.S. Department of Education 2009a). In the Northeast and Islands Region the share ranged from 8 percent in Connecticut to nearly 15 percent in Vermont in the 2007/08 school year (table 1).

The need to train general education teachers to work in inclusive classrooms has risen along with the number of special education students being taught in general education classrooms. Nationally, two-thirds of students receiving services under IDEA are in at least one course taught by a general education teacher<sup>1</sup> (U.S. Department of Education 2008). The share of students educated in general education classrooms (the least restrictive placement identified by the Office of Special Education and Rehabilitative Services) for about 80 percent of the school day increased from 45.3 percent in 1995 to 52.1 percent in 2004 (U.S. Department of Education 2009b). The share is higher for younger students ages 6–11 (62.5 percent) than for older students ages 12–17 (44.3 percent).

Federal policies have also contributed to the need to better train general education teachers to work with students with disabilities. IDEA 2004 seeks to ensure that both general and special education teachers understand how to work effectively with students with disabilities (Arthaud et al. 2007; Lombardi and Hunka 2001). It establishes the principle of “least restrictive environment” so that “to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled” (34 C.F.R. 300.114[a][2]).

The IDEA permits local education agencies to determine whether a child is eligible for special education services based on several criteria, including “the child’s response to scientific, research-based intervention” (34 CFR 300.307; 20 U.S.C. 1221e-3; 1401(30); 1414(b)(6)). These interventions may take place through “early intervening services” that support students not currently in special education but who “need additional academic and



TABLE 1

**Students with disabilities receiving special education services in public schools as a share of all students, by Northeast and Islands Region jurisdiction, 2007/08 (percent)**

Jurisdiction	All disabilities	Specific learning disabilities	Speech or language impairments	Mental retardation	Emotional disturbance
Connecticut	8.07	2.92	1.57	0.35	0.77
Maine	11.68	3.84	2.46	0.30	1.09
Massachusetts	11.12	4.56	1.69	0.82	1.00
New Hampshire	10.64	4.64	1.65	0.33	0.96
New York	9.45	4.04	1.89	0.32	0.87
Puerto Rico	9.64	5.70	1.69	1.06	0.13
Rhode Island	11.29	4.75	2.16	0.48	1.19
U.S. Virgin Islands	8.83	4.43	0.93	1.72	0.38
Vermont	14.96	4.36	1.79	—	2.16
National average (including Bureau of Indian Affairs schools)	8.96	3.89	1.72	0.74	0.67

— is not available.

Source: Data Accountability Center 2007; Vermont Department of Education n.d.; U.S. Virgin Islands Department of Education n.d.

behavioral support to succeed in the general education environment” (34 CFR 300.226(a); 20 U.S.C. 1413(f)(1)). In addition, the No Child Left Behind (NCLB) Act of 2001 mandates that all students be taught by “highly qualified” teachers, including students receiving special education services (No Child Left Behind Act 2001). Local education agencies must provide technical assistance and monitoring to ensure that students are taught by highly qualified teachers, a requirement that has increased attention to the standards and criteria for preparing teachers (Harvey et al. 2010). Moreover, initiatives such as response to intervention have increased the likelihood that general educators will participate in evaluating and delivering services to students with disabilities (Cummings et al. 2008; National Association of State Directors of Special Education 2006).

As a consequence of these trends and policies, education leaders and practitioners in the Northeast and Islands Region expressed an interest in learning more about the licensure of general education teachers for teaching students with disabilities. Specifically, state education agency officials in

Maine and Puerto Rico requested information on current policies and pending changes to requirements and on the special education study programs required by other state education agencies for initial certification of all general elementary and secondary education teachers. They also requested a study of the commonalities and differences in these requirements across jurisdictions in the Northeast and Islands Region. Officials in Maine saw a need to review their special education requirements for general education teachers, while Puerto Rico was reviewing its teacher certification regulations and wanted to know how other jurisdictions approached the issue.

IDEA 2004 requires that state education agencies provide guidance on licensure and certification requirements to ensure that general education teachers receive training in the subject matter and pedagogy that will enable them to effectively serve students with disabilities. Federal law allows states to allocate funds to support the preparation of general education teachers to teach students with disabilities, by reforming special education and general education teacher certification (including

recertification) or licensing requirements to ensure that:

- Special education and general education teachers have the training and information to address the full range of needs of children with disabilities across disability categories and have the subject matter knowledge and teaching skills, including technology literacy, to help students with disabilities meet challenging state student academic achievement and functional standards.
- Special and general education teacher certification (including recertification) or licensing requirements are aligned with challenging state academic content standards (20 USC 1400, § 654).

In addition, the American Recovery and Reinvestment Act of 2009 provides more than \$21 billion for three grant programs to be used to prepare general classroom teachers to instruct students with disabilities (U.S. Government Accountability Office 2009).

There is also regional interest in strengthening the preparation of general education teachers to work with students with disabilities. Six states in the Northeast and Islands Region (Connecticut, Maine, New Hampshire, New York, Rhode Island, and Vermont) participated in the 2001–07 Teacher Quality Initiative of the Council of Chief State School Officers Center, which focused on preparing all teachers to support students with disabilities. Conversations with representatives from these six states confirmed their interest in learning more about certification requirements in special education for general educators in the Northeast and Island Region.

### Research questions

To address this regional need, this study posed two questions:

- What are the certification requirements in special education<sup>2</sup> coursework and fieldwork

for general education teachers in all nine jurisdictions of the Northeast and Islands Region?

- What are the commonalities and differences in certification requirements across jurisdictions in the region?

Data sources and analysis are described in box 1 and appendixes A–E. The study was informed by a review of the current literature.

### What the research shows

As more students with identified disabilities participate in general education classrooms, their teachers need to know how to serve them well (Daane, Beirne-Smith, and Latham 2000; McLeskey and Waldron 2002). Moreover, the inclusive education movement emphasizes collaboration between special and general education programs, again requiring that all teachers know how to effectively teach students with disabilities (Jenkins, Pateman, and Black 2002; McKenzie 2009). Historically, students with disabilities have been educated through “pullout” services that take students out of their general education classroom to special education classrooms for part of the week. Some researchers have argued that pullout programs have not been shown to be as effective as inclusive learning environments and that students with disabilities are better served when taught primarily in the general education classroom, with supports provided as necessary (Gartner and Lipsky 1987; Hehir 2005; Jorgensen 1997).

The number of states requiring general education teachers to take coursework in special education has risen over the past 30 years (Geiger 2006; Geiger, Crutchfield, and Mainzer 2003) from 10 in 1979 to 37 in 1990 (Geiger 2006). A nationally representative survey of teacher preparation

**More teacher education programs and national organizations have begun to identify the skills and knowledge that general education teachers must have to teach students with disabilities**

## BOX 1

**Data sources and analysis**

Three data sources were used to address the research questions (for more detail, see appendix A):

*Publicly available state documents.* Researchers collected and analyzed publicly available state education agency documents on certification requirements for general education teachers in the Northeast and Islands Region, including teacher certification regulations, teacher education program approval guidelines, and teacher standards incorporated in teacher preparation requirements.

*Web-based database.* Researchers examined data from the National Association of State Directors of Teacher Education and Certification (2008) Knowledgebase Portal, a web-based database of state certification requirements as reported by the states.

*Interviews.* Two researchers interviewed each of nine identified teacher certification officials by telephone or in person using an open-ended interview protocol.

A matrix was used to check for agreement of information across the three sources; no discrepancies

were noted. After each jurisdiction's requirements were summarized (see appendix G), researchers developed a table aligning the information with the six descriptive categories from the document review and interview summary sheets (see table 2 in the text and appendixes D and E). The table was used to compare requirements across the nine jurisdictions and identify commonalities and differences. Finally, the researchers developed a table showing the curriculum content areas recommended by each jurisdiction for preparing teachers to serve students with disabilities (see appendix H).

programs found that most (95 percent of those surveyed) require at least some training in serving students with disabilities and that more than half require field experience (U.S. Government Accountability Office 2009).

Thus, more teacher education programs and national organizations have begun to identify the skills and knowledge that general education teachers must have to teach students with disabilities (Interstate New Teacher Assessment and Support Consortium 2001; Martinez 2003). For example, *Model Standards for Licensing General and Special Education Teachers of Students with Disabilities* details the similarities and differences between what general and special educators should know and be able to do across 10 principles of teacher development, such as subject matter, adaptations for diverse learners, instructional strategies, motivation and behavior, and assessment (Interstate New Teacher Assessment and Support Consortium 2001; see appendix F for a full list of the standards). Also, the National Comprehensive Center for Teacher Quality (NCCTQ) has outlined “critical competencies” that could be used in designing and evaluating teacher preparation programs and implementing inclusive education programs in

schools. NCCTQ recommends training in the legal foundations of inclusion, models of effective inclusive service integration, collaboration with other educators, access for all students to the general education curriculum, pedagogical strategies, family involvement, and student self-determination and advocacy (Holdheide and Reschly 2008).

Previous studies of preparation for special education training for general education teachers have focused on requirements set by higher education institutions. A national survey of higher education institutions found that most “strongly agreed” that their preservice teachers must take a course in special education and have an opportunity to do fieldwork in inclusive classroom settings (Harvey et al. 2010). Lombardi and Hunka (2001) describe one higher education institution's attempt to integrate special education coursework throughout a five-year teacher certification program. More recently, Regional Education Laboratory Southeast conducted a comprehensive review of how schools of education in the region integrated disability content into instruction (Holland, Detgen, and Gutekunst 2008).

While these studies focus mainly on university coursework, other studies have reviewed the

literature on state policy requirements (Geiger 2006; Geiger, Crutchfield, and Mainzer 2003) and reported on the number of states adopting policies on special education training for general education teachers. But there are discrepancies in how each source defines and reports these policies.

Based on data from state education agencies, the National Association of State Directors of Teacher Education and Certification (NASDTEC) supports a web-based database that tracks state policies. The database includes information on teacher coursework requirements in special education for general education teachers for 36 states and the District of Columbia. It lists 27 states as requiring coursework in teaching students with disabilities for those pursuing general education certification, 9 states and the District of Columbia as reporting no coursework requirements in this area. Fourteen states do not report data in this category (National Association of State Directors of Teacher Education and Certification 2008). The database lists five states in the Northeast and Islands Region as requiring coursework in special education for initial certification of general education teachers, and one state as reporting no coursework requirements in this area. Three jurisdictions do not report data to NASDTEC. Additionally, the National Comprehensive Center on Teacher Quality maintains a database of general education teacher preparation program requirements for special education coursework and fieldwork that lists regulations and program approval processes.

These resources are helpful for obtaining a national or state-by-state overview of general education certification regulations on teaching students with disabilities. But these sources do not include every jurisdiction or compare regulations in a particular region for commonalities and differences, the rationale for the requirements, specific content areas required in teacher preparation programs and the basis for the coursework, and pending changes to regulations.

This study addresses that gap in the literature and provides education decisionmakers with updated

information on state policies. It provides a more descriptive picture of the regulations and standards for certification requirements and the current status of regulations in the Northeast and Islands Region on special education training for general education teachers and the rationale for those policies as understood by state education agency certification officials. The study synthesizes the certification requirements for initial teacher licensure in prekindergarten–grade 12<sup>3</sup> in nine jurisdictions: Connecticut, Maine, Massachusetts, New Hampshire, New York, Puerto Rico, Rhode Island, U.S. Virgin Islands, and Vermont.

**As of February 2010, eight of the nine state education agencies in the Northeast and Islands Region had regulations or standards that address the preparation of general education teachers to serve students with disabilities**

## WHAT THE STUDY FOUND

As of February 2010, eight of the nine state education agencies in the Northeast and Islands Region had regulations or standards that address the preparation of general education teachers to serve students with disabilities (table 2). These range from approved courses and fieldwork experience to programs of study incorporating specific content areas for serving students with disabilities. The one jurisdiction that did not require coursework or fieldwork in this area is revising its regulations to require coursework. Four states required general education teachers to engage in fieldwork with students with disabilities. In addition, three other state certification officials pointed out that, because of the large numbers of students with disabilities in general education classrooms, most teacher candidates will have fieldwork experience with these students as part of their regular student teaching and other field experiences. Thus, they noted, regulations mandating specific fieldwork with students with disabilities may not be needed.

The state education agencies that had proposed or were making changes to their regulations were

TABLE 2

**Certification requirements for preparing general education teachers to teach students with disabilities in general education classrooms, by jurisdiction, as of February 2010**

Jurisdiction	Coursework requirements <sup>a</sup>	Units/hours of coursework	Policy documents stipulating coursework content	Required program of study	Fieldwork required with students with disabilities	Amount of fieldwork required with students with disabilities
Connecticut	Yes	36 hours	Connecticut Common Core of Teaching; National Council for Accreditation of Teacher Education (NCATE) standards	Approved course	No	na
Maine	Yes	3 credits	Not specified	Approved course	No	na
Massachusetts	Yes	na	Professional Standards for Teachers	Integrated curriculum	No <sup>b</sup>	300 hours early childhood; none elementary or secondary
New Hampshire	No <sup>c</sup>	na	na	None	No	na
New York	Yes	na	Pedagogical Core	Integrated curriculum	Yes	40 days
Puerto Rico	Yes	3	Not specified	Approved course	No	0
Rhode Island	Yes	na	Rhode Island Program Approval standards; Rhode Island Beginning Teacher Standards	Integrated curriculum	Yes	Not specified
U.S. Virgin Islands	Yes	3 credits	Not specified	Approved course	No	na
Vermont	Yes	na	Vermont five standards, 16 principles; Vermont Results-Oriented Program Approval process; NCATE standards; Interstate New Teacher Assessment and Support Consortium standards	Integrated curriculum	No <sup>d</sup>	na

na is not applicable.

a. Either a specific course or an integrated approach throughout a state-approved teacher preparation program.

b. But candidates for the Early Childhood Teacher of Students with and without Disabilities endorsement must have fieldwork with students with disabilities.

c. But Approved Professional Preparation Programs for Early Childhood Education (grades preK–3) must provide teaching candidates with understanding of child development and learning as it relates to children with developmental delays or disabilities.

d. Although no specific requirement is stipulated for certification, teacher candidates must complete a portfolio entry that focuses on students with disabilities and have experiences with diverse classrooms.

Source: Authors' analysis based on data from publicly available state education agency documents, National Association of State Directors of Teacher Education and Certification (2008), and interviews with the certification official in each jurisdiction in the Northeast and Islands Region.

developing requirements for more specific knowledge and skills related to the needs of students with disabilities. In particular, the preservice competencies that were being drafted in Connecticut and the more specific language to be included in the New Hampshire regulations indicate that state education agencies were looking to provide more detailed guidance for institutions of higher education and for local education agencies in the training for all teachers who will work in increasingly inclusive educational settings.

### What are the certification requirements in special education for general education teachers in the Northeast and Islands region?

This section summarizes the certification requirements for each jurisdiction based on the review of state education agency documents and interviews with state education officials (see table 2 and appendix G for detailed findings on each jurisdiction's requirements for preparing general education teachers to teach students with disabilities in general education classrooms, rationales for the regulations, and requirements for approved teacher education programs).

*Coursework and fieldwork requirements.* As of February 2010 eight of nine Northeast and Islands jurisdictions (Connecticut, Maine, Massachusetts, New York, Puerto Rico, Rhode Island, U.S. Virgin Islands, and Vermont) required general education teachers to complete coursework on serving students with disabilities to obtain initial certification or licensure. Four jurisdictions (Connecticut, Maine, Puerto Rico, and U.S. Virgin Islands) required that teacher candidates complete a course (36 hours or 3 credits) addressing content in special education. Additionally, two jurisdictions (New York and Rhode Island) stipulated that general education teachers spend at least part of their student teaching fieldwork in classrooms with students with disabilities. Massachusetts requires that teachers certified in the early childhood program complete fieldwork in classrooms with students with disabilities, but fieldwork is not required of other general education teachers.

### *Basis for coursework.*

In the jurisdictions with special education coursework requirements for general education teachers, state policy documents stipulate the content that teacher candidates should master to teach students with disabilities in the general education classroom. Five of nine jurisdictions (Connecticut, Massachusetts, New York, Rhode Island, and Vermont) address the preparation of general education teachers to serve children with disabilities through specific standards for teacher preparation programs. These professional standards provide guidance for the content of courses or competencies against which prospective teachers are evaluated. To be approved by the state education agency, programs must establish that they meet the requirements for training teachers in these standards and that they require teacher candidates to demonstrate knowledge and experience in serving students with special needs in order to graduate from the program. One of nine jurisdictions (New Hampshire) has no explicit requirements for general educators in teaching students with disabilities.

*Revisions to regulations.* Interviews with state certification officials gathered information on the status of state regulations for preparing general education teachers to serve students with disabilities and on any proposed changes. As of February 2010 three jurisdictions (Connecticut, New Hampshire, and New York) were revising parts of these regulations. Massachusetts and Vermont were considering changes but were still gathering input. The remaining jurisdictions (Maine, Puerto Rico, Rhode Island, and U.S. Virgin Islands) were not considering revisions to their teacher certification regulations in this area at the time of the interviews (table 3).

**Connecticut, Maine, Puerto Rico, and U.S. Virgin Islands required that teacher candidates complete a course addressing content in special education, and New York and Rhode Island stipulated that they spend at least part of their student teaching in classrooms with students with disabilities**

TABLE 3

**Dates for current and proposed state teacher certification regulations on teacher preparation to work with students with disabilities, as of February 2010**

Jurisdiction	Current regulations adopted	Pending revisions	Expected date of revisions
Connecticut	1998	Yes	2010
Maine	2005	No	na
Massachusetts	2003, amended 2007	No (working group drafting for 2010)	na
New Hampshire	1996, updated 2004	Yes	2011
New York	2000	Yes	2011
Puerto Rico	2004	No	na
Rhode Island	2005	No (will be reviewed in 3-5 years)	na
U.S. Virgin Islands	2003	No	na
Vermont	2009	No (developing new teacher evaluation and assessment system and new definition of "effective teacher")	na

na is not applicable.

Source: Authors' analysis based on data from publicly available state education agency documents, National Association of State Directors of Teacher Education and Certification (2008), and interviews with the certification official in each jurisdiction in the Northeast and Islands Region.

In Connecticut revisions to the teacher certification regulations were discussed by the Board of Education in Winter 2009, and in February 2010 the board declared its intent to adopt the new regulations,<sup>4</sup> to be effective in 2014. Additional regulations proposed in November 2009 also included several new "pre-service teacher competencies" that are "necessary to teach a diversity of students," including such components as differentiating instruction and implementing research-based interventions (§10-145d-808). The new preservice competencies, which address teacher preparation for working with students with disabilities, will be introduced into teacher education programs in institutions of higher education in 2012.

New Hampshire's regulations on Approval of Professional Preparation Programs were being revised at the time of the study based on feedback from the program approval process and input from special education associations and stakeholders. The state's Professional Standards Board is expected to submit revised requirements for legislative approval in 2011. The proposed revisions included more specific language about the knowledge and skills teachers need to serve students with

disabilities in the general education classroom. They also included requirements for general education teachers to understand how approaches to learning differ for special education students, how to differentiate instruction, and how to implement legal requirements accordingly.

An October 2009 memo submitted for approval by the New York State Education Department to the Board of Regents addressed the department's focus on strengthening support for students with learning disabilities. This included adapting the special education certification model to increase training in collaboration between special and general education teachers and revising the requirements for content that all teachers must know in order to work with students with disabilities. The education department is working to have the new regulations in place by September 2011.

In addition to these pending changes Massachusetts and Vermont were reviewing their requirements as of February 2010. In December 2008 Massachusetts convened several working groups to revise the Professional Standards for Teachers, including the Working Group on Educator Excellence and the Educator Personnel Advisory

Council. A draft product was expected to be ready by the end of 2010. Vermont was changing its definition of an effective teacher, which will inform the development of professional teaching standards and, ultimately, a teacher evaluation system. This work was under way in 2009 and was expected to include reviewing the requirements for general education teachers to teach students with disabilities.

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### Commonalities and differences in certification requirements in the Northeast and Islands Region

This section answers the second research question, looking at what state certification requirements for general education teachers to teach students with disabilities have in common and how they differ. It considers state teaching standards for both course-based and integrated approaches.

**Professional teaching standards.** Five jurisdictions (Connecticut, Massachusetts, New York, Rhode Island, and Vermont) used state professional teaching standards to inform teacher certification regulations. The standards covered the knowledge, skills, and performance required of all teachers to meet the needs of students with disabilities. State education agency certification officials in the five jurisdictions reported that these standards were the basis for the content of the coursework or other requirements for teacher preparation.

The standards included knowledge indicators, such as learning about students with a range of disabilities, and skill indicators, such as differentiating instruction or implementing an Individualized Education Program. Connecticut's Common Core of Teaching, Massachusetts's Professional Standards for Teaching, and New York's Pedagogical Core all use professional standards that are incorporated throughout the program approval and teacher evaluation processes. Rhode Island's Program Approval standards and Vermont's Results Oriented Program Approval process standards outline the competencies in special education content that general education teacher candidates must demonstrate for the

preparation program to be approved by the state education agency and the indicators used to assess the competencies. Rhode Island and Vermont do not evaluate teachers individually on these standards, but rather approve programs based on course offerings and how the programs ensure that students meet the standards.

**Course-based or integrated approach.** One difference across jurisdictions in the Northeast and Islands Region was whether they take a course-based or an integrated approach to preparing teacher candidates to work with students with disabilities. Four jurisdictions (Connecticut, Maine, Puerto Rico, and U.S. Virgin Islands) required teacher candidates to take an approved course in special education. The content varied by jurisdiction. In Connecticut the course must cover such topics as “understanding the growth and development of exceptional children, including handicapped and gifted and talented children and children who may require special education, and methods for identifying, planning for and working effectively with special needs children in the regular classroom” (§10-145d-436). In Maine courses must address adapting curricula for all learners; modifying instruction for all learners, from students with mild to moderate learning disabilities to students identified as gifted and talented; identifying disabilities; and learning special education laws and regulations.

In Puerto Rico teacher candidates must take a course on “the nature of exceptional children” that includes content on inclusion and technology resources for children with disabilities (Puerto Rico Department of Education 2004, p. 11). The U.S. Virgin Islands Department of Education did not stipulate any specific curriculum for the required course.

**Connecticut, Maine, Puerto Rico, and U.S. Virgin Islands required teacher candidates to take an approved course in special education, while Massachusetts, New York, Rhode Island, and Vermont used an embedded or integrated approach to preparing general educators to work with students with disabilities**



Four jurisdictions (Massachusetts, New York, Rhode Island, and Vermont) used an embedded or integrated approach to preparing general educators to work with students with disabilities. These jurisdictions did not necessarily require a specific course, but the state education agency had established professional or program standards outlining the competencies expected of all teacher candidates. The approved preparation programs could either provide specific courses to address these competencies or integrate the necessary knowledge and skills throughout the program. Successful completion of an approved program is taken as evidence that the teacher candidates have acquired the required competencies to serve students with disabilities.

**Recommended curriculum.** During the interviews certification officials in each jurisdiction were asked about any curriculum requirements and related documents for courses for general education teacher candidates addressing students with learning disabilities. Across jurisdictions eight recommended special education content areas were identified,

though none of the jurisdictions required all eight (table 4; see appendix G for a detailed list of the specific requirements in each jurisdiction):

1. *Understand growth and development of exceptional children (required in seven jurisdictions).* Content includes learning theory, child development, and exceptionality in learning.
2. *Master instructional design, including planning and methods (required in five jurisdictions).* Content addresses skills in planning instruction and working with special needs children, understanding inclusion and mainstreaming of children in classrooms, and using research-validated instructional practice.
3. *Adapt, differentiate, accommodate, or modify instruction (required by five jurisdictions).* Content addresses modifying methods and instructional materials for students with disabilities, individualizing and differentiating instruction, and making accommodations to assist students with disabilities.

TABLE 4

#### Knowledge and skills in special education required for general education teachers, by Northeast and Islands jurisdiction, as of February 2010

Jurisdiction	Understand growth and development of exceptional children	Master instructional design (planning and methods)	Adapt, differentiate, accommodate, or modify instruction	Field experiences with students with disabilities	Prepare, implement, or evaluate Individualized Education Programs	Seek support or collaboration to assist students with disabilities	Understand the legal and historical foundations of special education	Identify student learning differences
Connecticut	✓	✓	✓	✓		✓		✓
Maine			✓	✓		✓		
Massachusetts	✓		✓	✓ <sup>a</sup>	✓			
New Hampshire	✓ <sup>a</sup>							
New York	✓	✓	✓	✓	✓	✓	✓	
Puerto Rico	✓	✓				✓		
Rhode Island	✓	✓	✓	✓		✓		
U.S. Virgin Islands								
Vermont	✓	✓		✓			✓	

a. Required for early childhood education endorsement only.

Source: Authors' analysis based on data from publicly available state education agency documents and interviews with the certification official in each jurisdiction.

4. *Participate in field experiences with students with disabilities (required by five jurisdictions).* Teacher candidates must have work experiences in classrooms serving students with disabilities.<sup>5</sup>
5. *Prepare, implement, or evaluate Individualized Education Programs (IEPs) (required in two jurisdictions).* Teacher candidates must become familiar with IEPs and learn to use them in plans for integrating students with disabilities into the classroom.
6. *Seek support or collaboration to assist students with disabilities (required by five jurisdictions).* Teacher candidates must learn to collaborate with other professionals and families to serve students with disabilities.
7. *Understand the legal and historical foundations of special education (required in two jurisdictions).* Teacher candidates must learn the legal foundations of special education and the historical and cultural context of special education services.
8. *Identify student learning differences (required in one jurisdiction).* Teacher candidates must learn to identify children with disabilities.

The U.S. Virgin Islands did not specify the special education content areas to be addressed in general education teacher preparation, and New Hampshire required content covering the growth and development of exceptional children (including children with disabilities) only for certification in early childhood education.

## STUDY LIMITATIONS AND DIRECTIONS FOR FUTURE STUDY

This study has several limitations:

- The information for the study came from a scan of publicly available documents and interviews with nine state education agency

certification officials. Thus, it captures only the publicly available information identified through a systematic keyword search and the knowledge of one credentialing official in each jurisdiction, as well as additional documentation provided by respondents. The researchers addressed this limitation by triangulating the data gathered from the interviews with data from the document review and the NASDTEC database and by obtaining documents from respondents that were not publicly available, including memos about pending revisions to certification regulations.

- One of the data sources, the NASDTEC database, did not include information on the certification requirements for three of the jurisdictions in this study—Maine, Puerto Rico, and the U.S. Virgin Islands. The potential limitation of incomplete or out-of-date information was addressed by verifying with respondents the accuracy of the documentation identified in the web search. The state education agency certification officials reviewed and verified the findings in the jurisdiction summaries prepared following analysis of documents and interviews.
- The scope of the study did not allow for examination of how requirements are applied in the teacher preparation programs or of their effectiveness in preparing teacher candidates to serve students with disabilities.
- This study describes the language that is reported in state education agency regulations, policy, and guidance documents and supported by state education agency certification officials. These sources do not distinguish among the types of disabilities that teacher candidates will be prepared to address.

State education agencies continue to review and update policies on teacher certification for teaching

**State education agencies continue to review and update policies on teacher certification for teaching students with disabilities in the general education classroom**

students with disabilities in the general education classroom. All jurisdictions either had requirements in place or were adopting policies.

Future research could be conducted to inform states about implementation of these policies in institutions that prepare teachers. Areas for further research might include examining the following issues:

- How do traditional and alternative teacher education programs differ within and across states in requirements or practices for preparing general education teachers to serve students with disabilities? For example, researchers could compare coursework and fieldwork addressing special education within alternative and traditional teacher preparation programs, using external reference points such as the INTASC standards and state-adopted teaching standards.
- How do institutions of higher education interpret and apply state policy guidance on preparing general education teachers in special education? For example, researchers could document how institutions of higher education structure teacher learning (through coursework and fieldwork) and what knowledge and skills are addressed.
- How is the ability of teacher candidates to support the learning of students with disabilities assessed? Researchers could synthesize and describe the summative assessment practices (such as portfolios in Vermont) used in certifying that teacher candidates possess the requisite knowledge.
- To what extent are state education agency requirements adequate to ensure that general education teachers are prepared to effectively serve students with disabilities? Additionally, how might state education agencies offer more specific guidance on preparing teachers across a broad range of disabilities, from moderate to more severe? Research in this area could profile how course content and field experiences address the preparation of teachers to meet the needs of students over a wide range of disabilities.

Information from such studies could inform revisions to state education agency requirements and potentially provide institutions of higher education with examples of courses and field experiences that expose teacher candidates to the full range of disabilities they may encounter in the classroom.

## APPENDIX A METHODOLOGY

This appendix describes the data source and methodology used in the study.

### Data sources

Researchers used three sources to gather and triangulate information on teacher certification requirements. Data were gathered and analyzed between September 2009 and February 2010 from three sources.

*State education agency web sites of Northeast and Islands Region jurisdictions.* The research team searched state department of education web sites (and in some cases state board of education web sites linked to a department of education web site) for publicly available documents addressing the education of students with disabilities by general education teachers. The research team selected keywords/search terms, and each researcher independently pilot tested them for effectiveness in finding pertinent information. Terms that did not turn up relevant information were discarded, and a master list of search terms was developed (box A1).

Two researchers independently conducted searches on each state education agency web site. Each researcher completed a state keyword tracking document (table A1) for each search term that led to potentially relevant information, documenting the path (how the researcher navigated through one or more web sites to retrieve a document), filename, title, and URL; briefly summarized the contents of each document; and indicated whether it was relevant to the study and why. The two researchers then compared their search results to ensure consistency (achieving 100 percent interrater agreement in all cases) and to compile the relevant documents identified in the searches.

Documents identified in this way included state regulations on teacher certification, state teacher education program approval documents, state professional teaching standards, and other state statutes and regulations regarding teacher preparation.

*Web-based database.* Researchers subscribed to the National Association of State Directors of Teacher Education and Certification (NASDTEC) Knowledgebase Portal ([www.nasdtec.info](http://www.nasdtec.info)), a

#### BOX A1

#### Keywords/search terms for searching state education agency web sites

The following are the final keywords used to search for relevant documents on Northeast and Islands Region state education agency web sites. For Puerto Rico the web searches, interview, and document reviews were conducted in Spanish, the language of the state education web site.

- Students with disabilities (niños/estudiantes con impedimentos).
- Inclusion/inclusive education (inclusión/modelo de inclusión).
- Special education (educación especial).
- Teacher certificat\*, certification (certificación, certificación docente).
- Credential\* (credencial).
- Teacher licens\* (licenciamiento docente).
- Preparation (preparación).
- Requirement (requisite).
- Approved educator/teacher preparation programs (programas autorizados de preparación de maestros).
- Educator/teacher preparation program approval (aprobación/autorización de programa de preparación de maestros).
- Certification regulations (reglamentos de certificación).
- Licensure regulations (reglamentos para el licenciamiento).
- Teacher certification/licensure legislation (legislación de certificación/licenciamiento docente).
- General education (educación general).

TABLE A1  
**Northeast and Islands jurisdiction keyword tracking document**

Keyword:						
Date:						
Path	Filename	Title	URL	Brief summary of contents	If used: criteria included (coursework, fieldwork)	If not used: reason for exclusion?
Keywords that did not turn up new or relevant information:						
Other notes:						

web-based database of state certification requirements, to identify states with special education coursework and fieldwork requirements for general education teachers. The database was used to triangulate data from the document review and interviews (see below).

The NASDTEC Knowledgebase Portal is a comprehensive, up-to-date source of information on teacher education and certification in the United States. State officials provide information on the certification requirements in 50 states and the District of Columbia (updated every six months). The database includes information on all the jurisdictions in the Northeast and Islands Region except Puerto Rico and the U.S. Virgin Islands; Maine did not report some data. Therefore, the

project was limited to two data sources for these three jurisdictions instead of the three used for the other jurisdictions. The draft summaries for these three jurisdictions were sent to the state education agency officials for verification as a further accuracy check.

*Interviews.* To identify the teacher certification official from each jurisdiction who provided direct oversight for teacher certification, the research team compiled a list of interview candidates based on information on state education agency web sites. Regional Educational Laboratory Northeast and Islands state liaisons<sup>6</sup> then reviewed the list and either confirmed one of the identified officials for each jurisdiction or suggested an alternate, in consultation with the jurisdiction’s representative

on the Regional Educational Laboratory Northeast and Islands Governing Board (the commissioner of education or designee). The researchers then contacted the teacher certification officials to confirm that they had primary responsibility for teacher certification requirements in their jurisdictions and to obtain consent to interview them. All contacted officials (one per jurisdiction) agreed to participate.

The interviews were intended to confirm and augment information on the web sites and in the NASDTEC database and to resolve any discrepancies, provide context and further details on relevant documents, and confirm that the materials were current and accurately represented the jurisdiction's policy. Interviews were also expected to solicit information on any revisions to the

regulations being considered by the state education agency.

Each interview was conducted by two researchers, in person or by telephone, using an open-ended interview protocol (box A2). The interview with the official from Puerto Rico was conducted in Spanish. The interview protocol was based on the Holland, Detgen, and Gutekunst (2008) findings on the integration of coursework and fieldwork focused on teaching students with disabilities in certification programs. The interview protocol was piloted with a recently retired teacher certification official and then modified slightly to increase its clarity. The teacher certification officials signed a consent form requesting their participation in the study and explaining the anonymity of their responses (appendix B), as recommended by the

## BOX A2

**Interview protocol for certification officials**

Before beginning the interview, refer to the summary document sent to the credentialing official prior to the interview. Tell the interviewee that we will refer to the summary throughout the interview to validate and augment that data.

1. How do your state/jurisdiction requirements for general education teachers prepare them to teach students with disabilities?
2. Does your state/jurisdiction have special education coursework requirements for general education teachers (includes both undergraduate and graduate students)?
3. If yes, what are the specific special education coursework requirements in terms of hours and credits for general education teachers?
4. Is there a required curriculum for coursework on teaching students with learning disabilities?
5. If yes, would you describe the required curriculum?
6. Does your state/jurisdiction have special education fieldwork requirements for general education teachers?
7. If yes, what are the specific fieldwork requirements concerning special education students for general education teachers (hours/structure)?
8. When were these most current requirements established?
9. What is the rationale for including these requirements for general education teacher certification?
10. Are you currently considering revising any of these requirements?
11. If yes, what is the rationale for revising these requirements?
12. Is there any additional information about your state/jurisdiction requirements for general education teachers focused on teaching students with disabilities that you would like us to know?
13. [Reference the list of documents gathered from state education agency web site and NASDTEC database.] Is this list of state teacher credentialing documents, Title II state reports, and state statutes and regulations regarding teacher preparation accurate? Do you know of additional publicly available documents that further describe certification requirements?
14. [If discrepancies exist in the data] In the data we gathered, there seems to be a discrepancy with what you are mentioning. [Describe discrepancy.] Why do you think this discrepancy exists?

Institutional Review Board at the Education Development Center.

Before each interview the certification official received the interview protocol and a list of the documents identified during the web searches. In addition to asking certification officials to confirm the accuracy of the information in these documents and in the NASDTEC database, researchers asked respondents for any additional relevant documents that should be included in the review. Some officials provided access to proposed revisions of regulations and information on program approval guidelines. These documents were reviewed and summarized using the same process as for the state education agency web site documents. (See appendix C for a full list of documents reviewed for each jurisdiction.)

### Data analysis

Researchers compared and analyzed the data from all three sources to ensure consistency.

#### *State education agency web site document review.*

After compiling the publicly available documents from the state education agency web search, two researchers coded the data using a summary sheet (appendix D) adapted from Bocala et al. (2009). Any additional documents referenced during the interviews with certification officials were also summarized. The summary sheet includes six categories based on the most common strategies of required coursework or fieldwork (as identified by Holland, Detgen, and Gutekunst (2008) used to prepare elementary teachers to teach students with disabilities:

- Special education requirements for general education teachers in teacher preparation coursework.
- Hours/units required for the specific coursework.
- State-required curriculum for the specific coursework.
- Special education requirements for general education teachers in teacher preparation fieldwork.
- Hours and structures required for the fieldwork.
- Additional special education requirements for general education teachers beyond coursework and fieldwork (such as shared coursework for special and general education and learning opportunities based on state teaching standards on serving students with disabilities).

Each researcher coded the documents independently, assigning teacher preparation requirements to the categories listed above. The researchers then compared indexed data and summary descriptive data for consistency. In three cases researchers noted discrepancies in how the two researchers had originally identified the document type on the protocol (for example, as nonregulatory guidance rather than regulations). The researchers discussed the discrepancies and revisited the documents to clarify the document type, achieving 100 percent interrater agreement in all three cases. The document review was completed before the interviews so that researchers could triangulate the data from the publicly available documents with information obtained during the interviews.

Three researchers systematically reviewed and coded the content requirements for each jurisdiction using established procedures for coding and analyzing qualitative data, including content analysis and clustering (Miles and Huberman 1994). Specifically, the researchers listed the certification requirements for each jurisdiction, clustering similar content and assigning a name to each cluster.

*Web-based database.* Two researchers independently reviewed the online NASDTEC Knowledge-base Portal, completing a data table for each state included in the database using the data collection protocol in table A2. They also completed a table of

TABLE A2

**Data collection protocol for National Association of State Directors of Teacher Education and Certification database**

Jurisdiction	Special education coursework requirement (yes or no)	Field experience in special/ exceptional students requirement (yes or no)
Connecticut		
Maine		
Massachusetts		
New Hampshire		
New York		
Puerto Rico		
Rhode Island		
U.S. Virgin Islands		
Vermont		

relevant coursework and fieldwork requirements by jurisdiction (table A3). The researchers reviewed the data to ensure consistency with information obtained from the state education agency web sites. Following the interviews with the certification officials, the Knowledgebase Portal was reviewed again for any updates, and the data tables were checked for consistency with information obtained in the interviews. No discrepancies were noted.

*Coding of certification official interviews.* The two researchers who interviewed the certification officials took detailed notes. The primary notetaker took verbatim notes. The other asked questions and also took notes. The two researchers compared notes following the interviews to check for consistency, and no discrepancies were noted. The two sets of notes were compiled into a single comprehensive document for each interview, and each researcher independently coded the notes using the interview summary sheet (appendix E). This instrument is based on the six strategies for preparing teachers to serve students with disabilities listed above, but it also allows for the addition of new categories of special education requirements for general education teachers that were identified in the interviews. For the category “State-required curriculum for the specific coursework,” the researchers coded whether the state had a required curriculum addressing coursework and fieldwork related to students with disabilities, the required content, and which documents specified these requirements, including teacher certification policies, state teaching standards, and guidelines for approval of teacher preparation programs. Open-ended questions on the interview protocol that yielded additional information were documented on the interview sheet in the summary section. The two researchers compared interview summary sheets to ensure consistency, and no discrepancies were noted.

TABLE A3

**National Association of State Directors of Teacher Education and Certification requirements in special education coursework and field experience for general education certification for Northeast and Islands jurisdictions, as of February 2010**

Jurisdiction	Course work in special education	Number of full time weeks (or equivalent) of student teaching	Is field experience with special/ exceptional students required?
Connecticut	Yes	10–15	No
Maine	Not reported	Not reported	Not reported
Massachusetts	Yes	Semester	No
New Hampshire	No	Not reported	Not reported
New York	Yes	Less than 9	Yes
Rhode Island	Yes	10–15	Yes
Vermont	Yes	10–15	No

*Note:* The NASDTEC database includes the 50 states and the District of Columbia. Maine did not report data, and Puerto Rico and the U.S. Virgin Islands are not included in the database.

*Source:* National Association of State Directors of Special Education 2006.



*Coding of state education agency documents for specific content.* Using established procedures as described above, three researchers reviewed and coded the content requirements in each jurisdiction for general education teacher preparation in teaching students with disabilities. Each researcher first independently listed all relevant content areas specified in state education agency certification regulations, state teaching standards, and guidelines for teacher preparation program approval. Similar content themes were clustered and coded (see appendix H for a list of content areas identified by jurisdiction). The three researchers then compared results for consistency. Although all three researchers identified the same content areas for each jurisdiction, there were slight differences in how the researchers clustered the content areas. For example, one researcher created two clusters for content related to Individualized Education Programs—one for developing and evaluating them and another for implementing them—while the other two researchers combined these two clusters. The researchers discussed

this and similar differences in coding results and resolved the issues with 100 percent interrater agreement.

*Data synthesis.* The researchers developed a matrix incorporating information from the three data sources to analyze for agreement. No discrepancies were noted. Using the matrix, researchers drafted a summary of each jurisdiction's preparation requirements for general education teachers for teaching students with disabilities. The summaries were sent for review to the certification officials who were interviewed, and any clarifications were noted. The researchers then developed a table aligned with the six descriptive categories from the summary instruments (see table 2 in main report). The table compared requirements across the nine jurisdictions and identified commonalities and differences. In addition, the researchers developed a table showing the curriculum content areas recommended by each jurisdiction for preparing teachers to serve students with disabilities (see appendix H).

## APPENDIX B CONSENT FORM TO ACCOMPANY INTERVIEW PROTOCOL

DATE, 2009

Dear \_\_\_\_\_,

Thank you for considering participating in the IES-funded project, *Teacher Preparation: Special Education Requirements for General Education Teachers*. The principal investigator for this project is Susan Mundry of Learning Innovations at WestEd. This project is focused on teacher credentialing requirements within the Regional Educational Laboratory for the Northeast and Islands (REL-NEI) region that support general education teachers in developing the knowledge and skills needed to teach students with disabilities. The project goal is to learn about the most current state requirements concerning the preparation of general education teachers to teach students with disabilities, and to produce a resource that clearly and concisely provides this information.

If you accept the invitation to participate in this project, you will contribute data about state policies and practices concerning the focus of the project. We will not request personal information from you. As an interviewee, we will make every effort to protect your confidentiality. When possible, this interview will take place in person, at a location convenient to you. If an in-person interview is not convenient, we will conduct the interview by telephone.

We expect risks and inconveniences associated with this project to be minimal and not greater than those ordinarily encountered in daily life.

We don't anticipate any direct benefits to individuals who participate in this project. The project will inform the implementation of existing and future studies of teacher credentialing requirements at the state level and will also give you the opportunity to express your professional voice as a means of informing research and policy.

There should not be any cost to you for participation in this project. Also, you will not be compensated for participating in this project.

If you decide to participate in this project, please understand that your participation is voluntary and that you have the right to withdraw your consent or discontinue your participation at any time without penalty.

We undertake to protect your confidentiality to the extent permissible by law. This project is designed to protect the anonymity of participants in all published reports or papers resulting from this study to the greatest extent possible.

The following precautions will be undertaken to protect the confidentiality of your participation in the research: Access to audio recordings will be restricted to research staff and professional transcriptionists. Materials will be managed and stored securely. Other research materials that might contain personally identifying information will be limited to REL-NEI research staff. Research data will not be labeled with identifying information such as your name or institutional affiliation. Real names of people and institutions you mention will be omitted or substituted with pseudonyms in the interview transcripts.

Publications, reports and presentations based on the data may use illustrative quotes and accounts drawn from the data but will not include the real names that might be used to identify particular people. **However, it is possible that you may be identifiable in future reports to outside readers if you play a unique role in credentialing general education teachers to teach special education students.** If you are potentially identifiable as the source for specific statements and quotes in publications and reports, you will be given the opportunity to review and approve their use prior to publication. Individuals who do not agree to these terms will not be included in the project.

This informed consent document, with your name on it, will be stored in a locked cabinet at

EDC. The informed consent documents will be destroyed by shredding 5 years after the results of the study are published. Although it happens very rarely, we may be required to show information that identifies you, like this informed consent document, to people who need to be sure we have done the research correctly. These would be people from EDC's Human Protections Program that oversees research involving human participants.

If you have any questions about this research project or its procedures, risks, and benefits, you should ask the Principal Investigator, Susan Mundry. You may contact her at 781-481-1106 or by email at [smundry@wested.org](mailto:smundry@wested.org). EDC's Human Protection Administrator at 1-800-225-4276 ext. 2971 or [HumanProtections@edc.org](mailto:HumanProtections@edc.org).

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### Statement of Consent

I have read the summary of this research study above. It has been explained to my full satisfaction. I agree to participate in this study and I acknowledge receiving a copy of the consent form that I may keep.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name of Person

Giving Consent: \_\_\_\_\_

Please return the signed form to:

REL-Northeast and Islands  
 Education Development Center, Inc.  
 55 Chapel Street, Newton, MA 02458

**APPENDIX C**  
**EXPANDED TABLES OF PUBLICLY AVAILABLE**  
**DOCUMENTS FROM NORTHEAST AND ISLANDS**  
**REGION STATE EDUCATION AGENCY WEB SITES**

TABLE C1

**Publicly available documents from Northeast and Islands Region state education agency web sites**

Jurisdiction	Type of document	Number of documents	Date	Document name	URL
Connecticut	Regulation	1	August 6, 1998	State of Connecticut Regulation of the State Board of Education	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/Cert/regulations/certregs.ZIP">http://www.sde.ct.gov/sde/lib/sde/PDF/Cert/regulations/certregs.ZIP</a>
	Nonregulatory guidance	3	No date	Handbook for the Preparation of State Accreditation Visits for Educator Preparation Programs: Continuing Approval, New Program Approval	<a href="http://www.sde.ct.gov/sde/lib/sde/pdf/cert/tprepapp/hbook_visit_prep.pdf">http://www.sde.ct.gov/sde/lib/sde/pdf/cert/tprepapp/hbook_visit_prep.pdf</a>
			No date	Connecticut's Commitment to Excellence in Teaching: The Second Generation	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/EducatorStandards/commit.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/EducatorStandards/commit.pdf</a>
			January 3, 2001	Position Statement on the Education of Students with Disabilities	<a href="http://www.sde.ct.gov/sde/LIB/sde/pdf/board/disabilities.pdf">http://www.sde.ct.gov/sde/LIB/sde/pdf/board/disabilities.pdf</a>
	Professional standards	1	1999	Connecticut Common Core of Teaching	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/Curriculum/Curriculum_Root_Web_Folder/ccteach_all.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/Curriculum/Curriculum_Root_Web_Folder/ccteach_all.pdf</a>
	Other	3	January 26, 2001	Connecticut Common Core of Teaching Inventory (draft)	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/EducatorStandards/cct_inventory.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/EducatorStandards/cct_inventory.pdf</a>
			November 17, 2009	Proposed Changes to State of Connecticut Regulation	Available only through Connecticut State Department of Education
			February 4, 2009	State Department of Education Proposes Changes in Certification Regulation for New Teaching Certificates Effective in July 2014	<a href="http://www.sde.ct.gov/sde/lib/sde/pdf/pressroom/newcert_feb0409.pdf">http://www.sde.ct.gov/sde/lib/sde/pdf/pressroom/newcert_feb0409.pdf</a>

(CONTINUED)

TABLE C1 (CONTINUED)

**Publicly available documents from Northeast and Islands Region state education agency web sites**

Jurisdiction	Type of document	Number of documents	Date	Document name	URL
Maine	Regulation	3	No date	Chapter 114: Purpose, Standards and Procedures for the Review and Approval of Preparation Programs for Education Personnel	<a href="http://www.maine.gov/sos/cec/rules/05/071/071c114.doc">http://www.maine.gov/sos/cec/rules/05/071/071c114.doc</a>
			No date	Chapter 115 Part II: Requirements for Specific Certificates and Endorsements	<a href="http://www.maine.gov/sos/cec/rules/05/071/071c1152.doc">http://www.maine.gov/sos/cec/rules/05/071/071c1152.doc</a>
			No date	Chapter 115: Certification, Authorization, and Approval of Education Personnel	<a href="http://www.maine.gov/sos/cec/rules/05/071/071c1151.doc">http://www.maine.gov/sos/cec/rules/05/071/071c1151.doc</a>
	Nonregulatory guidance	0			
	Professional standards	0			
	Other	1	No date	Maine Department of Education Approved Exceptionality Courses	Available only through Maine Department of Education
Massachusetts	Regulation	3	April 24, 2007	603 CMR 7.00 Regulations for Educator Licensure and Preparation Program Approval (7.04)	<a href="http://www.doe.mass.edu/lawsregs/603cmr7.html?section=04">http://www.doe.mass.edu/lawsregs/603cmr7.html?section=04</a>
			April 24, 2007	603 CMR 7.00 Regulations for Educator Licensure and Preparation Program Approval (7.06)	<a href="http://www.doe.mass.edu/lawsregs/603cmr7.html?section=06">http://www.doe.mass.edu/lawsregs/603cmr7.html?section=06</a>
			April 24, 2007	603 CMR 7.00 Regulations for Educator Licensure and Preparation Program Approval (7.08)	<a href="http://www.doe.mass.edu/lawsregs/603cmr7.html?section=08">http://www.doe.mass.edu/lawsregs/603cmr7.html?section=08</a>
	Nonregulatory guidance	0			
	Professional standards	0			
	Other	0			
New Hampshire	Regulation	2	No date	Chapter Ed 500 Certification Standards for Education Personnel	<a href="http://www.gencourt.state.nh.us/rules/state_agencies/ed500.html">http://www.gencourt.state.nh.us/rules/state_agencies/ed500.html</a>
			No date	Chapter Ed 600 Approval Professional Preparation Programs	<a href="http://www.gencourt.state.nh.us/rules/state_agencies/ed600.html">http://www.gencourt.state.nh.us/rules/state_agencies/ed600.html</a>
	Nonregulatory guidance	0			
	Professional standards	0			
	Other	1		Proposed Changes to ED 600	Available only through New Hampshire Department of Education

(CONTINUED)

TABLE C1 (CONTINUED)

**Publicly available documents from Northeast and Islands Region state education agency web sites**

Jurisdiction	Type of document	Number of documents	Date	Document name	URL
New York	Regulation	1	September 15, 2007	Subpart 80-3 Requirements For Teachers' Certificates Applied for on or After February 2, 2004	<a href="http://www.highered.nysed.gov/tcert/part80-3.html#3.1">http://www.highered.nysed.gov/tcert/part80-3.html#3.1</a>
	Nonregulatory guidance	1	December 20, 2004	Individuals with Disabilities Education Act	<a href="http://www.vesid.nysed.gov/specialed/idea/regents.pdf">http://www.vesid.nysed.gov/specialed/idea/regents.pdf</a>
	Professional standards	1	No date	Pedagogical Core Requirements for Programs Leading to Certification in Teacher Education	<a href="http://www.highered.nysed.gov/ocue/documents/pedcore.doc">http://www.highered.nysed.gov/ocue/documents/pedcore.doc</a>
	Other	2	No date	Pedagogical Core: College Coursework—Teaching Students with Disabilities and Special Health-Care Needs	<a href="http://eservices.nysed.gov/teach/certhelp/ReqDescription.do?metaValueId=162&amp;catGrpId=null&amp;crId=3&amp;WIN_TYPE=null">http://eservices.nysed.gov/teach/certhelp/ReqDescription.do?metaValueId=162&amp;catGrpId=null&amp;crId=3&amp;WIN_TYPE=null</a>
				No date	Instructions for Preparing Applications for Registration of Programs Preparing Classroom Teachers
Puerto Rico	Regulation	1	February 5, 2004	Reglamento de Certificación del Personal Docente de Puerto Rico	<a href="http://www.de.gobierno.pr/sites/de.gobierno.pr/files/ReglamentoCertificaciones_0.pdf">http://www.de.gobierno.pr/sites/de.gobierno.pr/files/ReglamentoCertificaciones_0.pdf</a>
	Nonregulatory guidance	0			
	Professional standards	0			
	Other	0			
Rhode Island	Regulation	2	January 1, 2005	Requirements for an Elementary Teaching Certificate	<a href="http://www2.sec.state.ri.us/dar/regdocs/released/pdf/DESE/DESE_3284.pdf">http://www2.sec.state.ri.us/dar/regdocs/released/pdf/DESE/DESE_3284.pdf</a>
			January 1, 2005	Rhode Island Requirements for the Secondary Teaching Certificate	<a href="http://www.ride.ri.gov/EducatorQuality/DOCS/Certification/Requirements/iplan_sec.pdf">http://www.ride.ri.gov/EducatorQuality/DOCS/Certification/Requirements/iplan_sec.pdf</a>
	Nonregulatory guidance	0			
	Professional standards	0			
	Other	1	January 2009	Rhode Island Program Approval Process	<a href="http://www.ride.ri.gov/EducatorQuality/Teacher_Prep/Round3GuidelinesFinal01-08-09.pdf">http://www.ride.ri.gov/EducatorQuality/Teacher_Prep/Round3GuidelinesFinal01-08-09.pdf</a>

(CONTINUED)

TABLE C1 (CONTINUED)

**Publicly available documents from Northeast and Islands Region state education agency web sites**

Jurisdiction	Type of document	Number of documents	Date	Document name	URL
U.S. Virgin Islands	Regulations	1	August 7, 2003	Virgin Islands Board of Education Professional Staff Certification Regulation	<a href="http://www.teachusvi.net/FORMS/VIBOECertification.pdf">http://www.teachusvi.net/FORMS/VIBOECertification.pdf</a>
	Nonregulatory guidance	0			
	Professional standards	0			
	Other	0			
Vermont	Regulation	3	2000	No. 117. An Act to Strengthen the Capacity of Vermont's Education System to Meet the Educational Needs of All Vermont Students	<a href="http://www.leg.state.vt.us/DOCS/2000/ACTS/ACT117.HTM">http://www.leg.state.vt.us/DOCS/2000/ACTS/ACT117.HTM</a>
			March 2007	Results Oriented Program Approval	<a href="http://education.vermont.gov/new/html/pgm_prostandards/vsbpe/ropa_07.html">http://education.vermont.gov/new/html/pgm_prostandards/vsbpe/ropa_07.html</a>
			April 16, 2009	Regulations Governing the Licensing of Educators	<a href="http://education.vermont.gov/new/pdfdoc/pgm_prostandards/vsbpe/rules/educ_5100_licensing_regulations.pdf#page=37">http://education.vermont.gov/new/pdfdoc/pgm_prostandards/vsbpe/rules/educ_5100_licensing_regulations.pdf#page=37</a>
	Nonregulatory guidance	0			
	Professional standards	1	August 2003	Five Standards for Vermont Educators	<a href="http://education.vermont.gov/new/pdfdoc/pgm_prostandards/vsbpe/five_standards_03.pdf">http://education.vermont.gov/new/pdfdoc/pgm_prostandards/vsbpe/five_standards_03.pdf</a>
	Other	0			

## APPENDIX D STATE EDUCATION AGENCY WEB SITE DOCUMENT REVIEW SUMMARY SHEET

Note: Complete for each document. There may be several summary sheets representing multiple documents in each state.

State:	
Title:	
Source:	Such as state education agency web site or hard copy from state education agency staff
Authors:	
Date of document:	
Link and date of download:	

Identify document type (check):

Document type	Comments
<input type="checkbox"/> Non-regulatory guidance	
<input type="checkbox"/> Legislation	
<input type="checkbox"/> Regulations	
<input type="checkbox"/> Task force meeting minutes	
<input type="checkbox"/> PowerPoint presentation	
<input type="checkbox"/> Other (please describe):	

Brief summary of intended audience (if stated) and contents: [text]

Does it provide information on **special education requirements for general education teachers**? If so, summarize briefly: [text]

Identify and briefly describe the requirements.

Component/feature	Brief description
<input type="checkbox"/> Coursework requirements	
<input type="checkbox"/> Units/hours of coursework	
<input type="checkbox"/> State required curriculum	
<input type="checkbox"/> Fieldwork requirements	
<input type="checkbox"/> Hours of fieldwork	
<input type="checkbox"/> Additional requirements	

Does it provide additional information about how to fulfill requirements? If so, summarize briefly: [text]

Does it provide a rationale for the requirements? If so, summarize briefly: [text]

Please describe other information relevant to the research questions provided: [text]



## APPENDIX E

### INTERVIEW SUMMARY SHEET

State/Jurisdiction:

Interviewee:

Position title:

Date of interview:

Identify type of interview (check):

In-person

Phone

Other (please describe):

Summarize briefly the information on **special education requirements for general education teachers** collected from the interview: [text]

Identify and briefly describe requirements from interview field notes.

Component/feature	Brief description
<input type="checkbox"/> Coursework requirements	
<input type="checkbox"/> Units/hours of coursework	
<input type="checkbox"/> State required curriculum	
<input type="checkbox"/> Fieldwork requirements	
<input type="checkbox"/> Hours of fieldwork	
<input type="checkbox"/> Additional requirements	

Did the credentialing official provide a rationale for the requirements(s)? If so, summarize briefly: [text]

Did the credentialing official provide information about any higher education institutions in his or her state/jurisdiction that required general education pre-service teachers (including both undergraduate and graduate students) to complete requirements above and beyond the basic requirements? If so, summarize briefly: [text]

Please describe any additional information offered by the credentialing official: [text]

## APPENDIX F

### INTERSTATE NEW TEACHER ASSESSMENT AND SUPPORT CONSORTIUM MODEL STANDARDS FOR LICENSING GENERAL AND SPECIAL EDUCATION TEACHERS OF STUDENTS WITH DISABILITIES (2001)

The Interstate New Teacher Assessment and Support Consortium (2001, p. 3–4; INTASC) standards articulate four major areas of teacher knowledge and skill:

1. “Content—Both general and special education teachers have command of the subject matter that they teach such as math, English language arts, science, social studies, and the arts. In addition, special education teachers have knowledge of the content of expanded curriculum in areas such as communicative, social and emotional development, communication skills and oral language development, social/behavior skills, motor skills, functional and independent living skills, employment-related skills, self-advocacy skills, orientation and mobility skills, and travel instruction. (INTASC Core Principle 1)
2. Pedagogy—Both general and special education teachers understand how, and can effectively teach, content to students with disabilities. This means teachers have a repertoire of instructional strategies, assessment techniques, and accommodations they can employ based on each student’s needs. They create a positive learning environment that motivates students, and are able to communicate with students, plan instruction, self reflect, and collaborate with families and other professionals to further student learning. In addition, special education teachers know how to design and implement specialized accommodations, to access resources and assistive technologies to support student learning, and to provide transition support. (INTASC Core Principles 4–10)
3. Students with disabilities—Both general and special education teachers know their

students, including specific information about each student’s abilities and disability(ies), learning strengths and needs, prior experiences, and cultural and linguistic backgrounds. In addition, special education teachers have specialized knowledge of specific disabilities and their implications for teaching and learning in order to address the unique needs of individual students with disabilities. (INTASC Core Principles 2 and 3)

4. Contexts—Both general and special education teachers have knowledge of the special education policies, procedures and legal requirements that provide the framework within which teaching of students with disabilities occurs (INTASC Core Principle 1). In addition, special education teachers have a greater understanding of the larger contexts within which the teaching of students with disabilities occurs (family, classroom, school, community, district), advocate for appropriate education within these contexts, and work across these contexts to meet the needs of students with disabilities. (INTASC Core Principle 10).” (p. 3–4)

The 10 INTASC principles and their implications for serving students with disabilities are as follows (Interstate New Teacher Assessment and Support Consortium 2001):

“Principle 1: The teacher understands the central concepts, tools of inquiry, structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

*Implications for students with disabilities:* Both general and special education teachers demonstrate an understanding of the primary concepts and ways of thinking and knowing in the content areas they teach as articulated in INTASC subject matter principles and other professional, state, and institutional standards. They understand the underlying values and implications of disability legislation and special education policies and

procedures as they relate to their roles and responsibilities in supporting the educational needs of students with disabilities. All teachers provide equitable access to and participation in the general curriculum for students with disabilities.” (p. 10)

“Principle 2: The teacher understands how children learn and develop, and can provide learning opportunities that support the intellectual, social and personal development of each learner.

*Implications for students with disabilities:* Both general and special education teachers understand that all children have similar patterns of learning and development that vary individually within and across cognitive, social, emotional, and physical areas. They recognize that children with disabilities may exhibit greater individual variation in learning and development than students without disabilities, and that a disability often influences development and functioning in more than one area. Teachers use knowledge of the impact of disabilities on learning and development to optimize learning opportunities for each student.” (p. 14)

“Principle 3: The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

*Implications for students with disabilities:* Students with disabilities come from a variety of cultures, languages, classes, and ethnicities. Disability, like other aspects of diversity, may affect a student’s approach to learning and a teacher’s approach to teaching. Teachers understand students with disabilities within the broader context of their families, cultural backgrounds, socioeconomic classes, languages, communities, and peer/social groups.” (p. 17)

“Principle 4: The teacher understands and uses a variety of instructional strategies to encourage students’ development of critical thinking, problem solving, and performance skills.

*Implications for students with disabilities:* Ensuring that students with disabilities can participate

successfully in the general curriculum requires teachers to tailor their instructional strategies to the particular learning needs of individual students. General and special education teachers use a variety of instructional strategies and technologies and know how to modify and adapt the general curriculum to accommodate individual students’ needs. Students with disabilities who have goals related to an expanded curriculum will also need specialized instruction to achieve those goals.” (p. 20)

“Principle 5: The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

*Implications for students with disabilities:* Students’ affiliation and acceptance within a community is an important basis for developing social responsibility, self-esteem, and positive peer relations. Students learn more effectively when they are valued members of a learning community in which everyone can grow and learn. Teachers welcome students with disabilities and take deliberate action to ensure that they are included as members of the learning community. Teachers may also need to structure activities that specifically foster engagement, self-motivation and independent learning in students with disabilities.” (p. 24)

“Principle 6: The teacher uses knowledge of effective verbal, nonverbal, and media communication technologies to foster active inquiry, collaboration, and supportive interaction in the classroom.

*Implications for students with disabilities:* Students with disabilities often have communication or language delays or disorders associated with their disabilities. They may require multiple and alternative modes of communication. Teachers set a high priority on establishing a safe and comfortable environment in which students with disabilities are encouraged and supported to use language and contribute their ideas. They teach language

and communication skills, make accommodations to promote effective communication, and encourage and support the use of technology to promote learning and communication.” (p. 27)

“Principle 7: The teacher plans instruction based on knowledge of subject matter, students, the community, and curriculum goals.

*Implications for students with disabilities:* While students with disabilities often pursue the same learning goals within the general curriculum and benefit from instruction in a manner that is similar to that of their non-disabled peers, they may require adjustments in goals, teaching strategies or supports. Some students with disabilities may require an expanded curriculum that may include areas such as functional life skills, communication skills, or behavior/social skills. Planning for students with disabilities requires an individualized plan of instruction and is a collaborative process that involves special and general educators, the student (when appropriate), families, and other professionals.” (p. 29)

“Principle 8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

*Implications for students with disabilities:* Individualized comprehensive assessments are required for students with disabilities and are used to determine eligibility for special education services, to plan individualized instruction, and to monitor and evaluate student performance. It is also expected that students with disabilities will participate in the overall assessment programs of the classroom, school district, and state, and that they may require accommodations to demonstrate their knowledge and skills. In addition, some

students with disabilities may require assessments related to achievement in an expanded curriculum (i.e. alternate assessments).”

“Principle 9: The teacher is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

*Implications for students with disabilities:* Teacher reflection is essential for designing, monitoring and adapting instruction for all students, including students with disabilities. Teachers reflect on their knowledge of the learning strengths and needs of individual students with disabilities, and question and evaluate the appropriateness and effectiveness of their instructional choices and practices for building on those strengths and meeting those needs. Based on their data-based reflections, teachers engage in actions that consistently support and promote the achievement of students with disabilities.” (p. 35)

“Principle 10: The teacher fosters relationships with school colleagues, families, and agencies in the larger community to support students’ learning and well being.

*Implications for students with disabilities:* Families, schools and communities are important contexts for teaching, learning, and development. Teachers advocate for students with disabilities to receive the support they need to be successful in the general curriculum and to achieve the goals of their individual education plans. They collaborate with each other, with other professionals, and with families to ensure that students with disabilities are valued members of the classroom, school, and larger communities.” (p. 37)

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## APPENDIX G

### JURISDICTION SUMMARIES OF REQUIREMENTS FOR PREPARING GENERAL EDUCATION TEACHERS TO TEACH STUDENTS WITH DISABILITIES IN GENERAL EDUCATION CLASSROOMS

This appendix presents detailed findings on each jurisdiction's requirements for preparing general education teachers to teach students with disabilities in general education classrooms, rationales for the regulations, and requirements for approved teacher education programs.

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#### Connecticut

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* Connecticut's regulations for teacher certification, adopted in 1998, require all teacher candidates to complete at least one 36-hour course in special education. This course must cover such topics as "understanding the growth and development of exceptional children, including handicapped and gifted and talented children and children who may require special education, and methods for identifying, planning for and working effectively with special needs children in the regular classroom" (§10-145d-436). Required competencies include recognizing differences in individuals' approaches to learning, understanding methods for planning and varying instruction for special needs students, and seeking sources of support within the school for meeting the needs of students with disabilities. Teacher candidates must provide evidence of having taken this course to receive the initial educator certificate; otherwise, they are issued an interim educator certificate and will not receive further certification until they fulfill this requirement. While Connecticut does not explicitly require that teacher candidates complete their 10 weeks of fieldwork in a classroom with students with disabilities, the state has adopted the National Council for Accreditation of Teacher Education (NCATE) standards for its teacher preparation programs (see below), which recommend that candidates have an opportunity to practice in settings that include students with exceptionalities.

*Rationale for requirements.* According to the Department of Education official, the department wants to ensure that every general education teacher can competently teach students with disabilities. Under Connecticut's response to intervention model (Scientific Research Based Instruction), all teachers must be more prepared for working with students with disabilities because the initiative is seen as a general education program and all teachers need a better understanding of how to serve students with disabilities in mainstream classrooms.

*Teacher preparation program approval requirements regarding students with disabilities.* Teacher preparation programs in Connecticut must submit written program descriptions demonstrating that they have adopted the NCATE standards as Connecticut's teaching standards. NCATE standard 4 specifies that preparation programs should ensure that candidates are able to design, implement, and evaluate curriculum and learning experiences for a variety of learners. Connecticut teacher preparation programs must also ensure that teacher candidates understand the Common Core of Teaching. These standards stipulate that teachers must be trained to understand "exceptionalities in learning" and to "vary their instructional methods" accordingly (Connecticut State Board of Education 1999, pp. 5 and 7).

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#### Maine

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* Maine's teacher certification regulations, adopted in 2005, require that all candidates in general education teaching programs complete a Department of Education–approved three-credit course in teaching exceptional students in the general education classroom. The course must address competencies including adapting curriculum and modifying instruction for all learners and using supportive assistance to meet students' needs. All early childhood teachers who are certified to teach students from birth to age 5 are required

to complete a minimum of three semester hours in teaching early childhood special education. Applicants certified in other states must meet the requirement in order to renew their first professional teaching certificate. Although Maine does not specifically require that the student teaching experience include working with students with disabilities, the education department official explained that in most cases, the student teacher is placed in inclusive classrooms to gain experience with students with disabilities.

In addition to coursework, all Maine teachers must demonstrate that they meet Maine's 10 initial certification standards, in accordance with Maine Department of Education Regulations 13 and 114. One of the standards requires that teachers demonstrate "knowledge of the diverse ways in which students learn and develop and the ability to provide learning opportunities that support their intellectual, physical, emotional and social development" (p. 12).

*Rationale for requirements.* The Department of Education credentialing official reported that the rationale for requiring teacher candidates to complete coursework in educating students with disabilities is the federal requirement that students with disabilities be educated in the "least restrictive environment" (IDEA 2004).

*Teacher preparation program approval requirements regarding students with disabilities.* Approved programs are required to design, implement, and evaluate curricula and experiences for candidates to acquire and apply the knowledge and skills necessary to help all students learn. In addition, programs are encouraged to provide an opportunity for candidates to gain field experience with students with exceptionalities.

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## Massachusetts

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* The current Massachusetts teacher certification

regulations, adopted in 2003 and amended in 2007, require teachers obtaining a general early childhood or elementary education (grades 1–6) license to take seminars or courses "on ways to prepare and maintain students with disabilities for general classrooms; for example, use of strategies for learning and of behavioral management principles" (regulations 603 CMR 7.04). Candidates for the elementary license must also know about the "characteristics and instructional implications of moderately and severely disabling conditions" (603 CMR 7.06). This requirement is not directly stated in the regulations for candidates seeking certification in a secondary subject matter area, but all teaching candidates must meet the Massachusetts Professional Standards for Teachers. These standards require candidates to demonstrate competencies in planning curricula and instruction, including implementation of Individualized Education Programs. Candidates must also be able to make instructional adjustments to curricula, based on students' different learning needs.

While fieldwork requirements for an elementary or secondary education license do not stipulate experience with students with disabilities, to obtain the license "Early Childhood Teacher of Students with and without Disabilities" (prekindergarten–grade 2), candidates must complete fieldwork in at least one setting with students with disabilities (603 CMR 7.04). Candidates for the early childhood license must also know the "basic theories of cognitive, social, physical, language, and emotional development in children and adolescents, including learning through play, as they apply to children with and without disabilities" and "preparation, implementation, and evaluation of Individualized Education Programs" (603 CMR 7.06).

*Rationale for requirements.* The Department of Education official reported that the endorsement for teacher of students with moderate disabilities (a separate license from general education) is currently Massachusetts's "highest waiver area" and therefore a "high need area." Massachusetts also has a focus on ensuring that teachers who serve

students with disabilities have a solid foundation in subject matter content.

*Teacher preparation program approval requirements regarding students with disabilities.* Approved teacher preparation programs must use the Professional Standards for Teachers as the basis for their coursework and their assessment of candidates. Prospective teachers must pass the Preservice Performance Assessment, based on the state teaching standards, during their student-teaching phase or as part of a culminating performance assessment. To assess whether candidates have met the standards, candidates are evaluated through a process that involves the program supervisor and the supervising practitioner.

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### New Hampshire

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* New Hampshire's Certification Standards for Educational Personnel, updated in 2004, do not identify specific requirements for coursework or fieldwork in teaching students with disabilities for initial certification of general education teachers. To obtain an initial license, a candidate must complete an approved professional preparation program.

*Rationale for requirements.* New Hampshire has no specific requirements for coursework or fieldwork in teaching students with disabilities for initial certification of general education teachers.

*Teacher preparation program approval requirements regarding students with disabilities.* Regulations for the Approval of Professional Preparation Programs guide approval of teacher education programs in New Hampshire. The state credentialing official reported that approved programs are outcome-based—the Department of Education requires teacher preparation institutions to ensure that their teacher candidates achieve the knowledge, skills, and dispositions specified in the state teacher certification regulations and NCATE

standards before being licensed. Programs are reviewed to identify course offerings, evaluate the experiences of candidates and cooperating teachers, and examine the evidence that candidates meet requirements. Several requirements address the education of teachers to serve “diverse” students but do not directly address students with disabilities. These standards require teachers to understand and identify student differences in learning and to implement “instruction that is responsive to their diverse needs” (Ed 610.02 (e)). The state's process for approving professional preparation programs for early childhood education (preschool–grade 3) includes the requirement that early childhood education teaching candidates develop an understanding of child development and learning related to developmental delays or disabilities.

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### New York

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* New York regulations, enacted in 2000, require that all general education teachers have coursework in special education based on the “Pedagogical Core” (Chapter II, 52.21(b)(2) (ii)). That means that teaching candidates must demonstrate specific knowledge and skills related to “identifying strengths, individualizing instruction, and collaborating with others to prepare students with disabilities and special needs to their highest levels of academic achievement and independence” (regulations 52.21(b)(2)(iii)) and “curriculum development, instructional planning, and multiple research-validated instructional strategies for teaching students within the full range of abilities” (regulations 52.21(b)(2)(v)). Other required competencies include understanding the nature of students with disabilities and the effect of these disabilities on learning and behavior, knowing about inclusion/mainstreaming, using accommodations, understanding the legal and historical/cultural foundations of special education, and knowing about Individualized Education Programs.

All candidates must have at least 100 hours of fieldwork before beginning student teaching and then must complete at least 40 days of supervised student teaching with students across a range of developmental levels. These experiences must include placement in “high-need schools” and “with students with disabilities” (regulations 52.21(b)(3)(iii)(C)). Candidates may demonstrate compliance with these requirements by graduating from an approved program or by providing a transcript that passes evaluation.

*Rationale for requirements.* According to the New York State Education Department official, the state takes a “competency-based approach,” with the education department setting the knowledge and skills requirement for teaching candidates.

*Teacher preparation program approval requirements regarding students with disabilities.* New York does not have teacher preparation program approval requirements addressing the preparation of teachers to serve students with disabilities.

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## Puerto Rico

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* Puerto Rico’s teacher certification regulations, adopted in 2000 and amended in 2004, specify that teacher candidates must take a course on the nature of exceptional children that includes content on inclusion and technology for serving students with disabilities.

*Rationale for requirements.* The rationale for requiring a course in special education, as described by the credentialing official, is that federal law requires that students with disabilities be integrated into the least restrictive learning environment.

*Teacher preparation program approval requirements regarding students with disabilities.* Puerto Rico does not have teacher preparation program approval requirements addressing the preparation of teachers to serve students with disabilities.

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## Rhode Island

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).*

Rhode Island’s requirements, which came into effect in 2005, specify that teachers may become certified by graduating from an approved teacher preparation program or by providing a transcript that passes evaluation. Teachers certified through transcript analysis must have completed a course in identifying and serving special needs children. Specific competencies required by Rhode Island for serving students with disabilities include identifying student learning differences and understanding the impact of students’ disabilities on classroom performance, designing instruction and using accommodations that meet students’ developmental needs, and working with specialists and collaborating with families to meet students’ needs. In addition, teacher candidates must complete fieldwork in a variety of educational settings, including schools that serve students with a range of abilities.

*Rationale for requirements.* The rationale for the regulations, according to the state certification official, stems from the program approval standards for teacher preparation programs that specify that all educators must have expertise in working with students with disabilities. Preparation programs that do not integrate working with students with disabilities throughout their curriculum are not considered to be meeting those standards.

*Teacher preparation program approval requirements regarding students with disabilities.* Although specific coursework and fieldwork in special education are not stipulated for approval of teacher preparation programs, programs must demonstrate that the Rhode Island Program Approval process standards are integrated throughout the program. Those standards incorporate the Rhode Island Beginning Teacher Standards, which are aligned with Interstate New Teacher Assessment and Support Consortium (INTASC) standards and include indicators related to serving children with special needs, such as



accommodating instruction for individuals with learning disabilities.

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### U.S. Virgin Islands

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* Teacher certification regulations, adopted by the Board of Education in 2003, specify that general education teachers must complete one three-credit course in special education to become certified. The board does not stipulate any specific curriculum for this course or any special education fieldwork. The Board of Education reviews all teacher applicant transcripts to ensure that this course requirement has been met.

*Rationale for requirements.* The rationale for requiring a course in special education, as described by the credentialing official, is that inclusion regulations necessitate that all teachers be able to effectively address the learning needs of children with disabilities.

*Teacher preparation program approval requirements regarding students with disabilities.* The U.S. Virgin Islands does not have program approval requirements addressing the preparation of teachers to serve students with disabilities.

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### Vermont

*Requirements for preparing general education teachers to teach students with disabilities in general education classrooms (coursework/fieldwork).* Vermont's teacher certification requirements, adopted in March 2007 and updated three times,

were developed by a design team based on best practices and drawing on INTASC and NCATE standards. The Regulations Governing the Licensing of Educators specify that candidates demonstrate competencies, including “integrat[ing] students with disabilities into appropriate learning situations” (p. 7) and “understand[ing] laws related to student and educator rights and responsibilities, and appl[y]ing current state and federal laws and regulations as they pertain to all children, including those who are at risk and those with disabilities, and treat[ing] students and colleagues fairly and equitably” (p. 8). No specific coursework is required, but teacher preparation programs must demonstrate that their candidates meet all requirements through their coursework, fieldwork, and a licensure portfolio conducted within approved teacher preparation programs.

*Rationale for requirements.* The rationale for the requirements in Vermont, as described by the credentialing official, is federal education policy and the state's emphasis on educating exceptional students in regular public school programs with appropriate assistance and modifications provided by the general education teacher and others.

*Teacher preparation program approval requirements regarding students with disabilities.* Teacher preparation programs are approved through Vermont's Results Oriented Program Approval process. The requirements related to preparation to teach children with disabilities in the general education classroom include ensuring that candidates know how students differ in learning and development, create equitable learning experiences, and gain experience in field settings that serve a diverse population of students.

**APPENDIX H  
KNOWLEDGE AND SKILLS IN SPECIAL  
EDUCATION RECOMMENDED FOR GENERAL  
EDUCATION TEACHERS, BY JURISDICTION**

Content area	Jurisdiction	Area of study
Understand growth and development of exceptional children	Connecticut	<ul style="list-style-type: none"> <li>Understands the growth and development of exceptional children</li> <li>Knows how students learn and develop</li> <li>Learns about exceptionalities in learning</li> <li>Recognizes individual differences in approaches to learning</li> <li>Identifies how learners perceive, interact with, and respond to the learning environment</li> </ul>
	Maine	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Massachusetts	<ul style="list-style-type: none"> <li>Assesses the significance of student differences</li> <li>Knows characteristics and instructional implications of moderately and severely disabling conditions (early childhood only)</li> <li>Knows basic theories of cognitive, social, physical, language, and emotional development in children and adolescents (early childhood only)</li> </ul>
	New Hampshire	<ul style="list-style-type: none"> <li>Develops an understanding of child development and learning as it relates to children with developmental delays or disabilities (early childhood only)</li> </ul>
	New York	<ul style="list-style-type: none"> <li>Understands the nature of students within the full range of disabilities and special health-care needs, and the effect of those disabilities and needs on learning and behavior</li> </ul>
	Puerto Rico	<ul style="list-style-type: none"> <li>Understands the nature of exceptional children</li> </ul>
	Rhode Island	<ul style="list-style-type: none"> <li>Seeks information about the impact of students’ specific challenges to learning or disabilities on classroom performance</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>Recognizes how students differ in their approaches to learning</li> <li>Learns how preK–12 children develop</li> </ul>
	Master instructional design (planning and methods)	Connecticut
Maine		<ul style="list-style-type: none"> <li>Not documented</li> </ul>
Massachusetts		<ul style="list-style-type: none"> <li>Not documented</li> </ul>
New Hampshire		<ul style="list-style-type: none"> <li>Not documented</li> </ul>
New York		<ul style="list-style-type: none"> <li>Demonstrates capacity in curriculum development, instructional planning, and multiple research-validated instructional strategies for teaching students within the full range of abilities</li> <li>Has broad understanding of inclusion/mainstreaming students with disabilities in classroom settings</li> <li>Develops skills in identifying student strengths</li> </ul>

(CONTINUED)

Content area	Jurisdiction	Area of study
Master instructional design (planning and methods) <i>(continued)</i>	Puerto Rico	<ul style="list-style-type: none"> <li>Understands inclusion</li> </ul>
	Rhode Island	<ul style="list-style-type: none"> <li>Designs instruction that meets the current cognitive, social, and personal needs of their students.</li> <li>Designs instruction that accommodates individual differences</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>Integrates students with disabilities into appropriate learning situations</li> <li>Integrates students with disabilities</li> </ul>
Adapt, differentiate, accommodate, or modify	Connecticut	<ul style="list-style-type: none"> <li>Recognizes the need to vary instructional methods</li> <li>Has ability to adapt instruction and services appropriately for all students</li> </ul>
	Maine	<ul style="list-style-type: none"> <li>Knows how to modify teaching methods and instructional materials</li> <li>Knows how to adapt instruction and services appropriately for all students</li> </ul>
	Massachusetts	<ul style="list-style-type: none"> <li>Uses professional judgment to determine whether instructional adjustments are necessary</li> </ul>
	New Hampshire	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	New York	<ul style="list-style-type: none"> <li>Understands how to individualize instruction</li> <li>Is skilled in designing and offering differentiated instruction that enhances the learning of all students in the content area</li> <li>Knows how to use curricular, behavioral, instructional, and testing accommodations to assist students with disabilities in the general education classroom</li> </ul>
	Puerto Rico	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Rhode Island	<ul style="list-style-type: none"> <li>Works with specialists to develop alternative instructional strategies to meet the needs of these students</li> <li>Knows how to make appropriate accommodations (for example, in terms of time and circumstances for work, tasks assigned) for individual students who have identified learning differences or needs in an Individualized Education Program (IEP)</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
Acquire field experiences with students with disabilities	Connecticut	<ul style="list-style-type: none"> <li>Participates in field experiences or clinical practice that include students with exceptionalities</li> </ul>
	Maine	<ul style="list-style-type: none"> <li>Participates in fieldwork or clinical practice in settings with exceptional populations</li> </ul>
	Massachusetts	<ul style="list-style-type: none"> <li>Participates in field experiences in which at least one setting must include children with disabilities (early childhood only)</li> </ul>
	New Hampshire	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	New York	<ul style="list-style-type: none"> <li>Participates in experiences in a variety of communities and across the range of student developmental levels</li> <li>Has field experiences with each of the following student populations: socioeconomically disadvantaged students, students who are English language learners, and students with disabilities</li> </ul>

(CONTINUED)

Content area	Jurisdiction	Area of study
Acquire field experiences with students with disabilities <i>(continued)</i>	Puerto Rico	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Rhode Island	<ul style="list-style-type: none"> <li>Completes field experiences in a variety of educational settings, including schools which serve culturally, linguistically, and economically diverse students and classrooms that serve students with a range of abilities</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>Completes a variety of field experiences in classrooms that serve a diverse population of students</li> </ul>
Prepare, implement or evaluate IEPs	Connecticut	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Maine	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Massachusetts	<ul style="list-style-type: none"> <li>Uses information in IEPs to plan strategies for integrating students with disabilities into general education classrooms</li> <li>Learns the preparation, implementation, and evaluation of IEPs (early childhood only)</li> </ul>
	New Hampshire	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	New York	<ul style="list-style-type: none"> <li>Gains general familiarization with IEPs</li> </ul>
	Puerto Rico	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Rhode Island	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
Seek support or collaboration to assist students with disabilities	Connecticut	<ul style="list-style-type: none"> <li>Seeks sources of support within the school</li> </ul>
	Maine	<ul style="list-style-type: none"> <li>Makes use of supportive assistance</li> </ul>
	Massachusetts	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	New Hampshire	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	New York	<ul style="list-style-type: none"> <li>Collaborates with others to prepare students with disabilities and special needs to their highest levels of academic achievement and independence</li> <li>Examines/understands the general education teacher's role working with a team of collaborating professionals and family members of students with disabilities</li> </ul>
	Puerto Rico	<ul style="list-style-type: none"> <li>Integrates technology to serve students with disabilities</li> </ul>
	Rhode Island	<ul style="list-style-type: none"> <li>Works effectively with students, families, community members, and colleagues from diverse backgrounds to create learning communities in which all students can succeed</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
Understand the legal and historical foundations of special education	Connecticut	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Maine	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	Massachusetts	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	New Hampshire	<ul style="list-style-type: none"> <li>Not documented</li> </ul>
	New York	<ul style="list-style-type: none"> <li>Knows the legal foundations of special education</li> <li>Understands the historical and cultural context of special education services and inclusive practices that guide school policy and procedures</li> </ul>
	Puerto Rico	<ul style="list-style-type: none"> <li>Not documented</li> </ul>

(CONTINUED)

Content area	Jurisdiction	Area of study
Understand the legal and historical foundations of special education ( <i>continued</i> )	Rhode Island	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>• Understands laws related to student and educator rights and responsibilities, and applies current state and federal laws and regulations as they pertain to all children</li> </ul>
Identify student learning differences	Connecticut	<ul style="list-style-type: none"> <li>• Learns methods for identifying special needs children</li> </ul>
	Maine	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	Massachusetts	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	New Hampshire	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	New York	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	Puerto Rico	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	Rhode Island	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	U.S. Virgin Islands	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>
	Vermont	<ul style="list-style-type: none"> <li>• Not documented</li> </ul>

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**NOTES**

1. In this study “general education teachers” refers to preK–12 teachers who are certified to teach general education classrooms.
2. Special education refers to “specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability, including instruction conducted in the classroom” (20 USC 1400, § 602).
3. To limit the scope of the study, alternative certification programs are not included.
4. At the time of publication, no new regulations had been posted on the Connecticut state department of education website.
5. In Connecticut and Maine, program approval standards and other guidance documents recommend field experiences with students with disabilities, but they are not required.
6. The state liaisons are the primary point of contact between Regional Educational Laboratory Northeast and Islands and the states and jurisdictions in the region. Liaisons are senior staff at Regional Educational Laboratory Northeast and Islands partner organizations, the Education Development Center, and Learning Innovations at WestEd ([relnei.org](http://relnei.org)).

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