



The Heralded Rise And Neglected Fall Of the Massachusetts Signing Bonus

When Massachusetts enacted its widely touted “signing bonus” program for new teachers, enthusiasm ran high among state officials and others. Today, the program is no more, and Mr. Fowler delivers the post mortem.

By R. Clarke Fowler

IN EARLY 1999, when it was formally launched, the Massachusetts Signing Bonus Program for New Teachers attracted nationwide attention. Small wonder, what with its \$20,000 signing bonus, its cross-country recruiting, and its promise to prepare individuals to be excellent teachers in just seven weeks. The *Tampa Tribune* wrote, “If the effort pays off, perhaps it can be duplicated here and elsewhere.”¹ The *Cleveland Plain Dealer* declared, “Massachusetts has vaulted to the forefront of the nation in teacher recruitment.”²

Favorable attention continued into the second year of the program, when the Milken Family Foundation recognized the Bonus Program at its national education conference in July 2000, prompting the *Boston Herald* to publish this enthusiastic headline: “Bay State Teacher Recruiting Cheered as Model for the Nation.”³ Eight months later, the state disseminated a favorable internal evaluation that generated this headline from the *School Board News*: “Teacher Bonuses Pay Off in Massachusetts.”⁴ One commentator wrote, “All eyes are on Massachusetts. The state’s success — or lack of it —

in training and retaining new teachers will interest departments of education in 49 other states!”⁵

When problems began to appear in 2001, however, only local eyes were watching. No national outlets published the stories about high attrition rates, ineffective recruitment, and inadequate training that appeared in the local press. Nor did the national media notice when the state legislature eliminated the Bonus Program’s funding altogether in spring 2003.

It is important to look at what happened in Massachusetts, because federal and state policy makers continue to push — and more states have begun to adopt — fast-track certification programs similar in many ways to the Massachusetts initiative. How, where, and why did this effort to circumvent traditional routes to teacher certification fall short of so many goals? Why did it disappear? And, most important, what lessons should policy makers draw from this experiment?

BACKGROUND

The Massachusetts Signing Bonus Program (MSBP) was preceded — indeed, made possible — by two events that occurred in Massachusetts in June 1998. The first was the announcement that 59% of aspiring teachers had failed to pass the first administration of the state’s

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new three-part licensure exam, the Massachusetts Teacher Tests. Aptly described as the “flunk heard round the world,”⁶ this event convinced some observers that schools of education were to blame for admitting and graduating too many individuals with too few skills. Many others argued that, because these tests were fraught with problems, such conclusions were unwarranted.⁷ But the protests fell on deaf ears. Commentators and policy makers seized upon the results as a pretext to condemn, and seek alternatives to, traditional approaches to teacher education.

The other enabling event was the news that Massachusetts had amassed a \$1-billion budget surplus. Thomas Birmingham, president of the state senate, proposed using part of the surplus to establish an endowment that would fund \$20,000 bonuses to lure high-achieving individuals into teaching. David Driscoll, the newly appointed state commissioner of education, who was seeking to take control of the teacher preparation issue, featured the bonus program as a key element of a larger initiative designed to improve teacher quality, which became law in July 1998.

PROGRAM DESIGN AND FOUNDING ASSUMPTIONS

The MSBP was designed to “encourage high-achieving candidates to enter the [teaching] profession who would otherwise not consider a career in teaching.”⁸ According to the state’s policy makers, such individuals often eschew teaching because of the low pay and the length of time it takes to complete teacher preparation.

Clearly, the \$20,000 bonus was designed to address the issue of low pay. Further, policy makers expected to increase retention by stretching the bonus out over four years: \$8,000 in year one and \$4,000 in years two, three, and four. To address the time issue, the state established the Massachusetts Institute for New Teachers (MINT) to prepare individuals to become teachers in just seven weeks. Since no such programs existed in Massachusetts, the state signed a contract with the New Teacher Project, an offshoot of Teach for America, to design and manage all aspects of this program.

Many professional educators objected to this fast-track approach, claiming that seven weeks is not long enough for individuals to master sufficient pedagogy to lead a classroom, but state officials argued that teacher educators had inflated the importance of pedagogy while neglecting the central role of content knowledge. According to Alan Safran, then associate commissioner of education, “Content is king. . . . We say the most im-

portant thing in teaching is to know your subject matter.”⁹ “The rest,” according to the director of a MINT training site, “learning theories and classroom management, that’s all fine-tuning.”¹⁰

State policy makers saw the MSBP as an opportunity to create an institution that would train more than just the bonus recipients. Driscoll described his ambitions for MINT in April 1999:

In its first year, the [MINT] program will only be offered to the 60 or so New Teacher Signing Bonus Recipients. In the future years the program could be expanded to enable hundreds and eventually thousands of new teachers each year to be trained to enter the classroom without taking time-consuming and expensive courses that have limited value.¹¹

If successful, MINT would become a large-scale, state-sponsored, fast-track alternative to traditional preparation programs. Indeed, it would become, by far, the largest source of new teachers in the state.

THE RISE AND FALL OF THE BONUS PROGRAM

When the recruiting campaign started, the national media reported that the state was off to a fast start. Readers of the *Daily Ardmoreite* in Oklahoma learned:

On one day last week, the education department’s job application Web site received 500 hits. Some 60 calls have been flooding the telephone hot line every two hours. And scores of students have been filling recruitment sessions held so far in Boston, New York, and California.¹²

The initial round of recruiting culminated in the spring of 1999, when officials announced the selection of 63 bonus recipients, chosen from a pool of 739 applicants. Commissioner Driscoll, who stated that these individuals would teach in high-need urban school districts, called it “a tremendous win for the Commonwealth.”¹³

Following the training and placement of the second cohort of bonus recipients, the department released to the press a favorable internal evaluation of the MSBP and MINT programs.¹⁴ Here is how proponents of fast-track certification described the results of this evaluation to a national audience:

Using a fast-track program similar to Teach for America, and offering the added incentive of signing bonuses, the Massachusetts Institute for New Teachers has gotten off to a fine start in attracting and training people, with 225 individuals entering classrooms (including such high-needs fields as math) through this route in the program’s first two years, and with more than 90% of their principals satisfied enough to want to hire more teachers from the program.¹⁵

Throughout the program's first two years, state officials issued increasingly optimistic predictions of the number of teachers MINT would produce. Projections ranged from a low of 10% to a high of 25% of the state's new teachers yearly.¹⁶ Although most of these teachers would not be bonus recipients, they would all benefit from the MINT training that the MSBP had pioneered.

Although the MSBP was supposed to recruit individuals who would otherwise not consider a career in teaching, the Harvard researchers found that many of the bonus recipients had not only previously considered a teaching career but had already taken steps to enter the profession.

Problems with the program, discussed in detail below, began to emerge in its third year, when I issued a report documenting problems with attrition, cross-country recruiting, teacher placement, and summer preparation. Commissioner Driscoll vigorously defended the MSBP and MINT, pointing to the "immense national recognition" they had received and noting that "other states have seen what we are doing and have judged that what we are doing is worth copying."¹⁷

In the fall of 2001, recruitment for the fourth — and, ultimately, final — cohort of bonus teachers began on a mixed note. Officials announced that they would select only 50 bonus recipients because the endowment had generated less income than anticipated. On the other hand, when the recruitment and selection cycle ended in April 2002, officials announced that nearly 400 individuals were accepted into MINT: 50 were bonus recipients, and the rest were eligible for a MINT scholarship. Many of the non-bonus recipients, however, did not attend, and 55% of those who were conditionally accepted failed to pass the state's licensure tests.¹⁸

In November 2002, recruitment for the fifth cohort began with officials announcing a dramatic change to the MSBP. Henceforth, only approved educator preparation programs would select and nominate bonus recipients. Moreover, bonus recipients would not attend MINT's seven-week summer training, but a "rigorous field-based training experience" that typically included a yearlong internship similar to student teaching.

This new incarnation of the MSBP never got off the ground because the state legislature expropriated the endowment that had supported this and other teacher-quality initiatives. Three factors triggered this action: the state faced a daunting \$3.2-billion deficit; the pro-

gram's powerful champion, Thomas Birmingham, had left the legislature; and the local media had frequently reported on the program's shortcomings.¹⁹ Although officials later persuaded the legislature to appropriate sufficient funds to provide promised bonuses to current participants, Massachusetts would not select any new participants. The Bonus Program was effectively dead. The state did not abandon fast-track preparation, however, because in October 2002 it had secured a grant from the U.S. Department of Education to support a revised version of MINT, now dubbed the Massachusetts *Initiative for New Teachers*.

PROGRAM PERFORMANCE

Although the MSBP produced just four cohorts, much information is available about its performance: an in-house evaluation conducted by a state department employee, an independent evaluation by the Center for Public Policy and Administration at the University of Massachusetts (UMass), research papers by Harvard University's Project on the Next Generation of Teachers, and data that I collected from the state department. What do these sources say about the MSBP's performance?

The recruitment efforts were successful on a number of dimensions. First, the program generated a large number of applications: 3,590 between 1999 and 2002. Since 312 bonus teachers were hired over these four years, the program had an applicant-to-hire ratio of roughly 12:1. Second, the UMass evaluators concluded that the MSBP and MINT programs, combined, succeeded in bringing "high-quality people into the teaching profession" who taught in high-demand fields, with nearly half "teaching in science or math (32% and 17% respectively)."²⁰

Recruitment failed, however, in two areas. Although the MSBP was supposed to recruit individuals who would otherwise not consider a career in teaching, the Harvard researchers found that many of the bonus recipients had not only previously considered a teaching career but had already taken steps to enter the profession.²¹ The other aspect of recruitment that failed was, ironically, the component that initially garnered so much national attention: cross-country recruiting. Although between 1999 and 2002 recruiters made 27 visits to states outside the Northeast, Massachusetts gleaned just seven bonus recruits from these states, at a total cost of more than \$50,000.²²

The \$20,000 bonus did not turn out to be as powerful an inducement as many expected. It was the chance to get into the classroom quickly, not the bonus, that

attracted individuals to this effort. As one bonus recipient told the Harvard researchers, "It wasn't the money, . . . it was the bypass of what I didn't think was necessary."²³ Moreover, these researchers found that the bonus did not influence participants' decisions about remaining in teaching.

Placement was also a problem. Although officials had stated that bonus recipients would teach in 13 high-need school districts, most did not. Fewer than half (45%) of all bonus teachers were initially placed in state-designated high-need areas. This problem worsened with time: only 36% of the fourth and final cohort taught in high-need districts; the other 64% did not. One factor that contributed to the paucity of placements in high-need districts was the often-convoluted and slow-paced hiring process in such districts.²⁴

The fast-track summer training turned out to be problematic on multiple fronts. The UMass researchers found that 40% of program participants rated the relationships with cooperating teachers as poor or very poor. These researchers deemed the summer training component "insufficient" and encouraged the state to "consider whether MINT needs to be changed fundamentally if it is to meet its current goal of serving high-need districts."²⁵ And the Harvard researchers found that MINT, like other centralized, state-run programs, was less effective than decentralized, district-based programs that focused on district-specific needs and content areas.

Retention was an even bigger problem. Over the five years from fall 1999 through fall 2004, 15% of the bonus teachers stopped teaching after one year, 31% after two years, and 44% after three years.²⁶ After three years, the MSBP had lost nearly twice as many fast-tracked teachers as New York State loses in the same time from its corps of mostly traditionally trained teachers (44% to 23%). Attrition rates were higher for those individuals who worked in high-need urban areas. After three years, the MSBP lost far more teachers from high-need urban districts than New York City loses from its urban districts (55% versus 30%).²⁷

Bonus recipients recounted to the Harvard researchers two primary reasons for leaving: their "limited preparation and teaching experience coupled with the schools' lack of capacity to support them in their work. . . . Because of [the program's] brevity, particularly, its very limited student teaching experience, the Signing Bonus recipients started their jobs with substantial need for continued, job-embedded training and support, which few schools had the capacity to provide."²⁸

Although the state did not study whether MINT graduates advanced the learning of their students, it

offered principals' responses to survey questions regarding MINT teachers (those with and without a bonus) as evidence of effective teaching performance. Analysis of both the state's and the UMass researchers' surveys indicate, though, that principals were neither eager nor reluctant to hire MINT graduates; rather, they were willing to consider them as they would any other candidate.

Finally, although state officials had earlier projected that fast-track preparation programs would eventually produce 20% to 25% of all new teachers each year, the state issued just 1.6% of all initial teaching licenses to MINT graduates between 1999 and 2002. MINT produced not a large stream but a small trickle of new teachers.

LESSONS TO BE LEARNED

The preceding data contain a number of lessons for policy makers who may be considering whether to adopt any of the three elements that brought the MSBP to national attention: signing bonuses, high-profile recruitment, and fast-track preparation. The first is that large signing bonuses, while effective at attracting attention from the media, are less effective at attracting teachers and ineffective at retaining them. Large bonuses are both unnecessary and costly.

The lesson regarding recruitment is that a high-profile recruiting campaign can produce a large number of applications from academically skilled individuals, including individuals with expertise in such high-need content areas as math and science. However, cross-country recruiting, which generated far more news stories than teachers from outside the Northeast, is neither necessary nor effective. States facing teacher shortages should recruit regionally, not nationally.

Another lesson related to recruitment is that teacher preparation programs should not be judged by the number of applicants or the ratio of applicants to hires that they generate. Even though the MSBP was highly selective, generating 12 applicants for every bonus teacher eventually hired, it still fell short of many of its goals.

Finally, fast-track summer preparation, the component that ultimately attracted many individuals into the MSBP, turned out to be problematic in multiple ways. Many bonus teachers were insufficiently prepared for the challenges of leading a classroom, especially in urban districts. The much-heralded fast track into teaching became an equally fast track out of teaching. Policy makers considering accelerated routes into teaching should carefully consider the Harvard researchers' cautions regarding fast-track summer training and the

UMass evaluators' endorsement of long-term teaching apprenticeships.

CONCLUSION

When Massachusetts launched the MSBP, its efforts were greeted with acclaim. Swamped phone lines, crashed websites, hundreds of applications, scores of high-achieving bonus recruits, and a favorable in-house evaluation were widely reported as evidence of the program's success.

Such declarations of success were premature but understandable. After all, policy makers had defined the problem not as teacher preparation but as teacher selection. They assumed that academic high achievers would learn to teach both more quickly and more effectively than graduates of schools of education. Their central question was: If we engage in high-profile recruiting and offer a signing bonus, will "the best and the brightest" come? When initial recruiting produced a large response, the program was declared a success.

The history of the now nearly forgotten MSBP clearly demonstrates, though, that policy makers were wrong to assume that skilled people could become effective teachers in a relatively short time — that teaching is easy for smart people. Even one prominent proponent of the fast-track approach, the National Council on Teacher Quality, acknowledged this fact when, summarizing the research of the Project on the Next Generation of Teachers, it noted in its newsletter that "alt. cert. programs aren't for everyone, as they require a good deal of self-confidence and experience on the part of the candidates."²⁹

But that spin is too mild. Consider instead the words of a mature, high-achieving Ivy League graduate who left the MSBP after teaching for one year in an urban school. "I knew I was in trouble," she told me, "when I was breaking down in tears not just after class but during class." Another participant, one who stayed with the program and whom state officials asked to speak to new recruits, wrote, "To be quite honest, my first term was pure hell."³⁰

Getting through the first year of teaching will always be challenging, but it should not be an ordeal that requires heroic feats of perseverance. Proponents of fast-track preparation may have found a way to attract more people into teaching, but the very lure that attracts such individuals into the classroom also diminishes their capacity to be successful enough to want to remain there. It makes little sense to build a national teacher supply policy on an approach that requires picking out the "remarkably resilient" from among the "best and the

brightest" who are expected to apply.

The problems that occurred in Massachusetts have not dampened the enthusiasm of policy makers elsewhere for fast-track preparation. Georgia and Tennessee are pursuing fast-track programs, as is the city of Baltimore. The federal government is increasing its funding for both Teach for America and its offspring, the New Teacher Project.

State and federal policy makers who forge ahead with fast-track programs, while ignoring the evidence from Massachusetts, are committing the sins of which they accuse teacher educators: paying too much attention to fads and no attention to results. If the teacher test fiasco that occurred in Massachusetts was "The Flunk Heard Round the World," then the fall of the MSBP is "The Failure That Policy Makers Ignored."

Richard Ingersoll has compared America's teacher supply problem to a leaky bucket, because we lose nearly as many teachers to attrition as we recruit. Accordingly, he urges policy makers to focus their efforts less on recruitment and more on retention.³¹ The fast-track approach, however, promises to provide the country with an even leakier bucket.

This is not to say that alternative routes should be dismissed. On the contrary, some variants, such as Pathways to Teaching and the Boston Teaching Residency, are promising. However, policy makers should be exceedingly wary of the fast-track approach to alternative certification. After all, Massachusetts carefully read and dutifully followed the fast-track proponents' playbook. The state hired the U.S. Department of Education's favorite fast-track contractor, the New Teacher Project, to design and initially implement this initiative. It recruited and quickly trained the right people — academic high achievers — during an intensive summer program. It even added an unprecedented \$20,000 bonus, spread out over four years.

And yet, despite doing everything right, the MSBP failed to meet most of its goals. Eventually, even Commissioner Driscoll, who had consistently rejected criticisms of the MSBP in the press, acknowledged some of its problems in a little-noticed policy forum:

When you talk about opening up the avenues, as we have in Massachusetts, for alternatively certified people, smart people who don't have a teaching background but want to come into the field, that's all very good. Wait till they get there, as we found out with our programs. Many of them left, because it's not easy.³²

Developing a sound policy for teacher recruitment and preparation is not easy, either. It certainly is not as easy as Massachusetts state officials thought it was when

they declared that content was king and that smart people would quickly master the purportedly lesser domains of pedagogy and classroom management. To their credit, state officials in Massachusetts eventually responded to MSBP's shortcomings and now allow MINT's district-based programs to offer yearlong apprenticeships to participants. Officials in the Bay State have not abandoned the fast-track approach, but they no longer embrace it with their prior fervor.

Meanwhile, to their discredit, policy makers elsewhere have rarely acknowledged, let alone responded to, what occurred in Massachusetts. They continue to confound teacher selection with teacher preparation, to inflate the role of content knowledge over pedagogical knowledge, and to cling to dogma over data.

1. "A \$20,000 Signing Bonus for Teachers," *Tampa Tribune*, 3 February 1999, p. 6.
2. "Gilding the Chalkboard," *Cleveland Plain Dealer*, 6 February 1999, p. 10-B.
3. Edward Hayward, "Bay State Teacher Recruiting Cheered as Model for the Nation," *Boston Herald*, 6 July 2000, p. 26.
4. "Teacher Bonuses Pay Off in Massachusetts," *School Board News*, 20 February 2001.
5. Gary Hopkins, "Are Signing Bonuses the Answer?," *Education World*, 22 February 2001, www.education-world.com/columns/archives/admin_archives.shtml.
6. Marilyn Cochran-Smith and Curtis Dudley-Marling, "The Flunk Heard Round the World," *Teaching Education*, vol. 12, 2001, pp. 45-64.
7. R. Clarke Fowler, "What Did the Massachusetts Teacher Tests Say About American Education?," *Phi Delta Kappan*, June 2001, pp. 773-80.
8. Massachusetts General Laws, Chapter 15-A, Section 19-A.
9. Andrea Billups, "Massachusetts Puts Money Where Math Is: Woos Teachers with Big Signing Bonuses," *Washington Times*, 27 November 1999, p. A-1.
10. Heidi Perlman, "Professionals Get Their Chance to Teach Through New Program," *Metro West Daily News*, 11 August 2000.
11. "Proposed System for Teacher Certification Based on Performance," unpublished paper, Massachusetts Department of Education, Boston, 20 April 1999.
12. Robin Estrin, "Massachusetts Brings Teacher Recruitment to New Level," *Daily Ardmoreite*, 2 February 1999.
13. Martin Finucane, "Teacher Bonus Winners Announced," *Standard-Times*, 25 May 1999.
14. "Massachusetts School Principals Give High Ratings to Signing Bonus Teachers," Massachusetts Department of Education, 26 December 2000, www.doe.mass.edu/news/news.asp?id=167.
15. Chester E. Finn, Jr., and Kathleen Madigan, "Removing the Barriers for Teacher Candidates," *Educational Leadership*, May 2001, pp. 29-31.
16. S. L. Wykes, "Some Teacher Bonuses up to \$20,000: Massachusetts Just One Example of Incentives Trend," *St. Paul Pioneer Press*, 1 February 1999.
17. David Driscoll, "A Statement Regarding the Teacher Signing Bonus Program and MINT (Massachusetts Institute for New Teachers) Programs," Massachusetts Department of Education, www.doe.mass.edu/news/news.asp?id=1307.
18. R. Clarke Fowler, "Fast Track . . . Slow Going?," *Ed Policy Research Brief*, August 2002, www.edpolicy.org/publications/documents/update_v2i1.pdf.
19. Connie Rizzolli, personal communication, 16 May 2006.
20. Andrew Churchill et al., "An Evaluation and Analysis of the 12-to-62 Plan for Recruiting and Retaining Teachers in Massachusetts," Center for Education Policy, University of Massachusetts, Amherst, www.umass.edu/education/cep. Search under Reports, followed by Teacher Recruitment and Retention.
21. Edward Liu, Susan Moore Johnson, and Heather G. Peske, "New Teachers and the Massachusetts Signing Bonus Program: The Limits of Inducements," *Educational Evaluation and Policy Analysis*, vol. 26, 2004, pp. 217-36.
22. R. Clarke Fowler, "The Massachusetts Signing Bonus Program for New Teachers: A Model of Teacher Preparation Worth Copying?," *Education Policy Analysis Archives*, 22 April 2003, <http://epaa.asu.edu/epaa/v11n13>.
23. Liu, Johnson, and Peske, p. 225.
24. Susan Moore Johnson, Sarah E. Birkeland, and Heather G. Peske, *A Difficult Balance: Incentives and Quality Control in Alternative Certification* (Cambridge, Mass.: Project on the Next Generation of Teachers, Harvard Graduate School of Education, November 2005); and Churchill et al., op. cit.
25. Churchill et al., p. v.
26. The one-year attrition rate I report here is calculated on the first four cohorts of bonus teachers; the two-year rate, on the first three cohorts; and the three-year rate, on the first two cohorts. These percentages were calculated from documents provided by the Massachusetts Department of Education in response to a series of Freedom of Information Act (FOIA) requests. I was unable to calculate data for the other years because the department changed the way it reported such data in response to FOIA requests.
27. Donald Boyd et al., "Initial Matches, Transfers, and Quits: Career Decisions and the Disparities in Average Teacher Qualifications Across Schools," unpublished paper, November 2002. Interested readers may Google the title.
28. Liu et al., pp. 232-33.
29. "The Failings (and Possibilities) of Alternative Certification," *Teacher Quality Bulletin*, vol. 6, 2005, www.nctq.org/nctq/jsp/view_bulletin.jsp?title=Archives&search_page=volumes.jsp&bulletinId=218.
30. Orin Gutlerner, Erin Gruwell, and Karen Terrell, "What the Massachusetts Institute for New Teachers (MINT) Looks Like in the Field," in *How to Find and Support Tomorrow's Teachers* (Amherst, Mass.: National Evaluation Systems, 2004), p. 133.
31. Richard M. Ingersoll, "Holes in the Teacher Supply Bucket," *School Administrator*, 20 March 2002, p. 4.
32. "Common Sense School Reform," *Policy Dialogue*, no. 54, Pioneer Institute, April 2004, p. 5.



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