

The Army Specialized Training Program and ‘Fast Track’ Professional Preparation

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Abstract: The early years of World War II saw an unprecedented collaboration between the armed forces of the United States and institutions of higher education. Shortages of manpower critical to the war effort and declining wartime enrollments in the colleges and universities led military-academic partnerships for the rapid preparation of physicians, engineers, and other professionals. One of these partnerships, the Army Specialized Training Program, yields lessons for modern advocates of accelerated professional preparation programs to meet the forecast teacher shortage.

Introduction

Many states are experiencing teacher shortages in such critical areas as mathematics, the sciences, and special education and the shortages are expected to become more acute in the future. Nearly a third of all U.S. teachers are aged fifty-five or older, threatening a flood of impending retirements (American Association for Employment in Education 2005, 2). In addition, fully forty percent of current public school teachers, and fifty percent of high school teachers, plan to leave the classroom by 2010 (National Center for Education Information 2005, 5). At the same time, concerns about teacher quality have led states to stiffen teacher credentialing requirements and increasing numbers of English language learners and ‘mainstreamed’ students have made the profession more demanding than ever. This perfect storm of impending retirements, increased demands on classroom teachers, and more rigorous teacher preparation programs threatens to upset the delicate balance of supply and demand for classroom teachers. Traditional professional preparation programs may be overwhelmed by these shortages.

In times of national crisis, government-academic partnerships have sometimes formed to meet such essential manpower needs. For instance, California’s chronic teacher shortage has pressured the state and its universities to develop various “fast track” programs to place teachers in the classrooms, often with minimal preparation. In some cases, individuals may “test out” of the entire coursework sequence for teacher preparation. Many states have adopted similar programs.

A similar manpower crisis occurred in the early years of World War II. As the scope of the war unfolded, it became clear that traditional academic programs could not supply the physicians, engineers, dentists, veterinarians, linguists, and area specialists needed by the military. The result was the development of the Army Specialized Training Program (ASTP) to hasten professional preparation in these fields. The story of the ASTP holds lessons for

those who advocate accelerated preparation programs of teacher preparation.

Origin of the ASTP

As the war in Europe expanded in 1939, many in the U.S. assumed that traditional modes of professional education would produce sufficient numbers of professionally trained men to meet the needs of the military for physicians, dentists, veterinarians, engineers, linguists, and area specialists. However, Japan’s attack on Pearl Harbor on December 7, 1941 changed the nature of American involvement in the conflict. Patriotic fervor caused men to enlist in the armed forces, diminishing enrollments in professional programs on university campuses. In addition, faculty enlistments diminished the capacity of universities to provide such programs. Passage of the Selective Training and Service Act on September 6, 1940, making men twenty-one to thirty years of age eligible for the military draft, exacerbated the problem (see Table 1).

Table 1: Attendance in Colleges and Universities 1939-1944

<u>Academic Year</u>	<u>Enrollments</u>	
	<u>Total</u>	<u>Male</u>
1939-40 (actual)	1,493,203	892,250
1940-41 (estimated)	1,518,970	907,000
1941-42 (actual)	1,403,990	818,559
1942-43 (estimated)	1,209,150	688,350
1943-44 (estimated)	833,275	278,000

Source: Zook, George F. “How the Colleges Went to War.” *Annals of the American Academy of Political and Social Science*, 231 (January 1944).

The American Council on Education (ACE) convened two meetings in 1942 to discuss the problem. The college and university presidents in attendance issued official statements reminding the nation that the ACE was created during WWI to address a similar crisis and volunteering the resources of their institutions to support the war effort. Specifically, they offered to develop accelerated degree programs and adopt year-round academic calendars. The Council went on to criticize the War Department’s existing training plans because they relied on traditional means of professional education, restricting the participation of talented minorities, the poor, and women. Finally, the ACE volunteered to serve as the coordinating agency for wartime professional training efforts and requested federal funds to do so (American Council on Education 1943).

At the same time, the true nature of the war made clear to military authorities that, even under optimal conditions, conventional means would never meet the military demand for trained professionals. On November 13, 1942, the draft age was lowered to eighteen years, which only underscored the manpower crisis for both the colleges and the military. The following month a joint statement issued by the Secretaries of War and the Navy acknowledged the ACE's contributions and adopted many of its recommendations by establishing the Army Specialized Training Division (ASTD) with Colonel Herman Beukema as its Director. Col. Beukema spent the early part of 1943 meeting with university presidents and others to implement the Secretaries' directives through the Army Specialized Training Program. Clearly, a partnership between higher education and the military to provide accelerated professional training programs would assure needed revenue to the colleges and universities and meet the vital manpower needs of the armed forces.

The Students

Among the first decisions to be made was how participants would be selected for the program. The requirements established included possession of a high school diploma for participants less than twenty-two years of age. Those over twenty-two must have completed one year of college with coursework in a foreign language, mathematics, physics, or biology. In addition, the men must score at least 110 (later raised to 115) on the Army General Classification Test (AGCT) (Keefer 1988, 50). The mean score for the nine million recruits who took the test between January 1940 and April 1945 was 104, putting those with 115 or higher in the top quartile (Chadderdon 1972, 33). Exceptions to these criteria were made for those already enrolled in certain other military training programs, those holding appointments to the United States Military Academy, and those over twenty-two years of age with substantial university work in a technical field.

Despite the ACE's criticism, the program was restricted to men. The Surgeon General recommended that women be considered for ASTP, but the War Department rejected the idea on the grounds that admitting women would reduce the available spots for men and that women did not need the financial aid the ASTP afforded men. Women were ultimately commissioned in the Medical Corps, but never through the auspices of ASTP. African-American men were eligible for the program, but never numbered more than three-fourths of one percent of the participants (ibid., 32).

During basic training recruits with requisite AGCT scores completed an ASTP Personal Data and Interview Form as a screening tool. Even so, nearly 1.3 million men qualified for a program targeted at 150,000. To further screen candidates, Specialized

Training and Reassignment (STAR) units were established on participating campuses in which panels of professors tested and interviewed candidates. One recruit described being "sent to Texas A&M, where we lounged around for two weeks taking more tests" (Keefer 1988, 56). Another recalled, "We stayed there [Georgia State Teachers College in Statesboro, GA] two or three weeks, were given orientation, and then tested by officers who looked like they were drawn from the bottom of the Army's talent bank" (ibid., 57).

The expanded screening process steered recruits to engineering, language, pre-medical, pre-dental, or pre-veterinary programs, but it did not always assign men appropriately. One recruit complained, "I was not prepared for college, but my AGCT test score of 160 got the army interested. I had no algebra or languages in high school. My ASTP professors could not figure out why the Army placed me, with no college courses in high school, in ASTP (ibid., 70).

Ultimately, about two-thirds of recruits came from existing Army units—recruits who had completed basic training and volunteered for the ASTP, and one-third from newly inducted recruits. At its peak in December 1943, ASTP enrolled just over 140,000 young men. The greatest number studied engineering, followed by medicine, languages, dentistry, and veterinary science (ibid.)

The Coursework

By spring 1943 eligibility rules were finalized, participating colleges and universities chosen, curriculum designed, and instructional methods in place. Still, implementation of the ASTP was slow. The goal was to begin classes in mid-March 1943, but it was not until the following fall that most were underway.

STAR units assigned most inductees initially to the Basic Engineering Curriculum (BE-1), which was divided into two six-week terms. The first term consisted of Mathematics, Physics, Chemistry, English, History, and Geography. The curriculum called for a total of twenty-four contact hours per week with three of them being lab work. Term two (BE-2) continued those subjects and increased the lab time to seven hours (see Table 2). During term two, trainees chose which preprofessional training they preferred and tested further to ensure aptitude for that area.

The content of the courses was strictly prescribed by the ASTD to guarantee some level of consistency across the program. Expert panels had designed programs of study for maximum efficiency. They eliminated duplication, minimized the liberal arts and did away with the elective courses that enriched typical undergraduate degree programs, but sometimes the standardized programs proved a poor fit for recruits. One soldier recalled, "I was selected

**Table 2: Army Specialized Training Program
Basic Phase
Curriculum BE-1 and BE-2**

Distribution Course		Contact Hrs. per Week*	Class	Lab
Term 1:				
Mathematics	AST-406	6	6	0
Physics	AST-304	7	4	3**
Chemistry	AST-205	3	3	0
English	AST-111	3	3	0
History	AST-133	3	3	0
Geography	AST-163	<u>2</u>	<u>2</u>	<u>0</u>
		24	21	3
Term 2:				
Mathematics	AST-407	5	5	0
Physics	AST-305	7	4	3**
Chemistry	AST-206	6	2	4
English	AST-111	2	2	0
History	AST-133	2	2	0
Geography	AST-163	<u>2</u>	<u>2</u>	<u>0</u>
		24	17	7

* Required by contract

** One hour for writing reports

Source: National Archives, Washington, D.C., Modern Military Branch. Military Archives Division. File: Director of Military Training. History Branch. ASTP. Curriculum File. Records of the ASF.

for first term basic engineering. This proved a big waste of my academic time as I had already taken every single course in the program except the math-but, of course, you took the program in a block, there weren't any electives" (Keefer 1988, 57). Another reported that, "Although I had completed first-year engineering at Mississippi State College, my freshman courses had not included physics. Since ASTP required physics, I had to start over" (ibid., 102-03).

The modular approach to curriculum design also presented problems. Trainees typically completed BE-1 and BE-2 at one institution, took their pre-professional training at another, and completed their professional preparation at a third. The frequent moving about allowed little opportunity for teacher-student bonds to form.

A typical day for an ASTP candidate in the Basic Curriculum phase of training began with reveille at 6:30am and ended with taps at 10:30pm, with the hours in between tightly scheduled. The Army estimated the overall workload at fifty-nine hours per week in supervised activities: twenty-four hours of classroom and lab work, twenty-four hours of prescribed study, five hours of military instruction, and six hours of physical education. One ASTPer at

Rutgers calculated the total somewhat differently in the following poem:

We are the boys of the A.S.T.P.
Ours is a rugged lot.
You may think our work is easy.
We assure you that it's not.

The Army thought we all could stand
A touch of higher knowledge;
And so they made life miserable
By sending us to college.

Our actual hours are 35,
They say if we would pass,
We must spend two hours study
For every hour of class.

Thus 35 plus 70
Comes to 105
Plus 21 a week to eat
So we can stay alive.

That totals to 126;
Formations, six hours more;
Washing up and room police

Takes another four.

For sleep at night and bunk fatigue
And things we want to do.

Now sleep's a foolish habit,
As anyone can see,
In just one week, if we skip sleep,
There's 32 hours free (Masin 1943, 13).

Some participants had trouble with the stiff academic pace, despite the careful screening process. One recruit recalled, "Toward the end of the first term-about mid-summer 1943 - I concluded that either I would not be able to maintain their standards or the program would be terminated. Even people with college degrees were having trouble keeping up" (Keefer 1988, 102).

Despite the combined rigors of accelerated academic programs and Army discipline, campus life afforded ASTP participants diversions of which other soldiers could only dream. One recruit who already held a bachelor's degree in music education with little math background found himself assigned to Basic Engineering training at Ohio State University. He reported that,

Life at Ohio State was just one step short of Paradise-food served on stainless steel trays, with as much cold milk as you could drink, and clean bedding in the dorm; Isally's ice cream store nearby; the Indianola Presbyterian Church just across the street, and church choir rehearsals Wednesday evenings, with a pipe organ, and a good organist to play it; every Friday night free and liberty in Columbus until 1:00 Monday morning. Boy! Was that 'real' Army life? (ibid., 92-3).

At several universities, the bulk of the male civilian student body had already enlisted or been drafted into the service, making the ASTP candidates the only males on campus. One ASTPPer assigned to the University of Nebraska recalled, "The University's male population was at a very low ebb when we arrived, and the ASTP kids moved in to help fill the void. Sororities had tea dances where boys and girls could meet, and many of us ended up with steady girl friends" (ibid., 92). Some communities even printed guides to local sites and organized social events and entertainments for their ASTP guests.

Preprofessional studies were truly an accelerated course sequence. Candidates were considered fit for the fast pace due to their high academic qualifications. The result was that the premedical curriculum, for instance, was reduced from the normal course of several years to just nine months. The tightly focused curriculum consisted of

That huge sum is 136
And leaves just 32

Qualitative Analysis, Physics, Biology, [technical] English, History, Organic Chemistry, Psychology, Comparative Anatomy, and Embryology spread across three terms (see Table 3). Like the Basic Curriculum, these courses were narrowly prescribed according to outlines developed by panels of experts at the outset of the ASTP.

By late 1943, the Army's manpower policies had yielded an oversupply of officers. Officer Candidate Schools (OCS) had produced 240,000 officers since September 1941, so those programs were severely reduced. At the same time, occupational draft deferments and other selective service policies had left the armed forces short of their recruiting goals by 200,000 men. Since ASTP programs included basic training, the candidates formed a readily available pool of recruits already in uniform-a tempting target for the armed forces to draw from. Ironically, many had resigned from ROTC programs in order to enter the ASTP, thereby forfeiting the opportunity to enter the regular Army as officers. Despite written assurances in ASTP recruitment literature that "no student now in the ASTP and doing satisfactory work will be let out," in February 1944, 110,000 trainees, nearly eighty percent of the total, were cut from the program.

Most of the initial cuts came in engineering. Some of these trainees were reassigned to medical school, but most were assigned to line units. In the words of Secretary of War Henry Stimson, "The Army of early 1944 was forced to cannibalize itself and the soldiers of the ASTP were among the first victims" (Stimson and Bundy 1948, 356). Often these new soldiers bore the brunt of the resentment their comrades had developed due to the ASTP's reputation as a soft billet for 'quiz kids' and college boys. One displaced recruit recounted, "If at all, it [participation in ASTP] made things tough on me later. I spent sixteen weeks on Officers' K.P. at Camp Maxey because the ASTP business left me alone, in a strange outfit, with a cadre anxious to show me the 'real' army" (Keefer 1988, 57).

Although the curtailment of the ASTP had devastating effects on individual soldiers, it did not seriously impact participating colleges and universities. First, despite the high profile of the military-academic partnership, most colleges and universities in the United States never participated in the program. Second, even those that had military students tended to adjust rapidly to wartime conditions. As drastic a change as the wartime reduction in student enrollments seemed at the time, it was dwarfed by the rapid, enormous expansion in demand for higher education brought on by the postwar G.I Bill. The ASTP officially lasted until early 1947, but the program never recovered from the massive curtailment in February 1943.

**Table 3: Army Specialized Training Program
Basic Phase Term 3
Advanced Phase Terms 4&5
Curriculum P-1**

Course		Contact Hrs. per Week*	Distribution	
			Class	Lab
Term 3:				
Qualitative Analysis	AST-211	9	3	6
Physics	AST-306	7	4	3**
Biology	AST-951	7	3	4
English	AST-111	2	2	0
History	AST-133	2	2	0
Geography	AST-163	<u>2</u>	<u>2</u>	<u>0</u>
		29	16	13
Term 4:				
Organic Chemistry	AST-261	9	3	6
Biology	AST-952	7	3	4
English	AST-112	2	2	0
Psychology	AST-904	4	4	0
Selected Courses***		<u>6</u>	<u>6</u>	<u>0</u>
		28	18	10
Term 5:				
Organic Chemistry	AST-262	9	3	6
Comparative Anatomy	AST-953			
or				
Embryology	AST-954	7	3	4
English	AST-113	2	2	0
Psychology	AST-905	4	4	0
Selected Courses***		<u>6</u>	<u>6</u>	<u>0</u>
		28	18	10

* Required by contract

** One hour for writing reports

1. French, German, or Spanish for those who had studied one of these in High School or College. Must continue in Term 5.

2. Economics. Must continue on Term 5.

3. Quantitative Analysis

4. Public Administration

5. Physical Chemistry

Source: National Archives, Washington, D.C., Modern Military Branch. Military Archives Division. File: Director of Military Training. History Branch. ASTP. Curriculum File. Records of the ASF.

Once preprofessional studies were completed, ASTP candidates entered regular programs of professional study that proceeded at a more traditional pace. Advancement from preprofessional to professional study required an overall "C" average, so ASTP participants were motivated to do well in their coursework. In some ASTP units, trainees were ranked according to grade point averages, and trainees enjoyed the same academic recognition as other students. Failure in any course resulted in separation

from ASTP and reassignment to a regular Army unit, often an infantry unit headed overseas (Chadderdon 1972, 58).

Demise of the ASTP

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The Results

In the short run, the ASTP did contribute to the manpower needs of the armed forces, both intentionally by providing thousands of professionally trained officers (although many of these did not enter active service until the post-war era), and unintentionally by meeting much of the Army’s need for combat soldiers in early 1944. The program also helped the colleges and universities that participated by providing needed support as large numbers of students left school for the military, although this benefit should not be overstated as only one-third of

U.S. institutions of higher education ever hosted ASTP students.

In the longer run, the ASTP helped colleges and universities eliminate redundancy in their degree programs, which became especially important as the postwar increases in enrollment pressured the institutions to be as efficient as possible. In addition, the new courses and modes of instruction developed for the ASTP influenced subsequent curriculum development, particularly in language instruction. In an effort to standardize curriculum across the 227 campuses that ultimately hosted ASTPers, audio-visual aids were used extensively, ushering university teaching into the technological age.

The ASTP also influenced colleges and universities to adopt more democratic practices in recruiting and admitting students. The program provided educational opportunities to thousands of academically talented young men without regard to socio-economic status. In fact, without the ASTP this author’s father would have not been able to afford higher education and likely would have never pursued a medical career. Other participants such as Henry Kissinger and Edward Koch may have followed very different career paths without the ASTP. Eighty percent of ASTP participants surveyed for one postwar study pursued more higher education after their initial ASTP experience. Forty percent completed Bachelor’s degrees, seventeen percent Master’s degrees, and eleven percent doctoral degrees. Twelve percent became physicians, dentists, and lawyers (ibid., 281).

The ASTP also opened the door for more women to enter professional schools. With their sons in the service, more families sent their daughters to college. The ASTP’s demonstrated success with those traditionally considered unfit for advanced training caused professional schools to be more willing to admit women (Chadderdon 1972, 69).

Finally, the ASTP helped point up the gross discrepancies in the quality of high school education across the country. Young men from every type of high school were thrown together and moved from institution to institution throughout the country. The strong and weak high school programs became readily apparent. Postwar federal spending on education aimed, in part, to improve high school instruction, especially in math, science, and foreign languages, the fields most prominent in the ASTP.

Lessons Learned

Although the ASTP was in effect for only a few years it provides some lasting lessons for any type of ‘fast-track’ education program. First, the conditions under which the ASTP began represent a unique confluence of needs. The customer, the US Army, needed large numbers of well-trained professionals in a short amount of time. The providers, the colleges and universities, needed large

numbers of students to replace those lost to the war effort. The colleges and universities found themselves with excess capacity precisely when the Army needed highly educated soldiers. In the current and impending teacher shortage, schools may need more teachers, but the colleges and universities that prepare them do not necessarily need additional students. Without mutual acute need, it is unlikely that the tremendous effort required to redevelop course programs and calendars will be expended.

Second, ASTP participants and providers often complained that the accelerated coursework was too much too fast. Students exhausted themselves trying to keep up with the demands of academic work and military training, especially those who entered the program with knowledge deficits. Most learners require some time to truly internalize and incorporate information. Any 'fast-track' professional education program must carefully consider reasonable pacing to maximize learning. Likewise, faculty complained that the pace of instruction was exhausting for the teachers, as well. Yale University reported, "The strains upon our facilities, and particularly upon our Faculty, began to be apparent, and illnesses, nervous collapses, and even deaths seemed to come thick and fast upon us" (Annual Report 1944, 15). Third, the ASTP shifted much of the focus at participating institutions from knowledge creation to knowledge transmission. Faculty found that their scholarly pursuits suffered under the demands of fast-paced instruction. Some institutions and faculties were more accustomed to this emphasis than others. Any 'fast-track' program must ensure that its goals do not conflict with how faculties conceive of their work or with the reward structures in place in academic institutions.

Fourth, ASTP students, particularly the engineers, suffered from the Army's overestimation of the need for trained professionals and its underestimate of the need for foot soldiers. Institutional promises were broken and participants' plans derailed. Any 'fast-track' program must not rely too heavily on projections of future manpower needs. In addition, 'fast-tracks' should include alternate routes for students to pursue if societal needs change. These alternate routes should make good use of the coursework they've already taken in order to minimize wasted time.

Finally, the ASTP siphoned off many of the best and the brightest Army recruits, diminishing the overall quality of the manpower available to other units (Keefer 1988, 269). Any 'fast-track' program must consider the opportunity cost of implementation—what good things may be given up if the 'fast-track' attracts large numbers of participants. Any program intended to benefit the needs of society must consider its larger impact.

Conclusion

Wisdom dictates approaching present problems with a sense of history in mind. While the past does not repeat itself, some conditions do recur and past events can inform present solutions. The Army Specialized Training Program was a unique program devised during a unique time. It encouraged structural changes in American education and provided unprecedented educational opportunity to thousands of talented young men. In addition, it may provide both useful lessons for curriculum designers and policy-makers, as well as cautionary tales to be considered by those developing accelerated educational programs to meet the current teacher shortage.

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