

SECTION V.

Adult Education and Workforce Development

Approximately 15 percent of Fort Carson Soldiers and 20 percent of Soldier spouses participate in some form of adult education or workforce skills development program in any given year during their Army tenure. Continuing education is often part of a Soldier's requirement for Army career advancement.¹ For those Soldiers who are considering a career outside the Army, or for Army spouses, adult education and workforce development can be sources of the skills and qualifications necessary for the non-military job market.

Study Objectives and Data Sources

This study examines the supply of, and demand for, Army adult education services and the institutional challenges presented by Fort Carson's growth. Specifically, this study addresses:

- The existing adult education provider network and affiliated resources and the ability of providers to meet future demand;
- The current and projected demand for adult educational services from Fort Carson Soldiers and spouses; and
- Unmet educational needs and possible opportunities to better link regional workforce needs with education programs.

Within the Army, educational programs are coordinated and facilitated through the Army Continuing Education System (ACES). Fort Carson's ACES is located on the Post in Building #1117 (education building). As described later in this section, many private adult education institutions have a physical or online presence at the education building.

Information related to current adult education demand from Soldiers and spouses and the supply of educational resources is based largely on data from ACES and the Pikes Peak Workforce Center (PPWFC), discussions with members of the Adult Education/Workforce Partnership Group,² and existing reports related to community adult education. The Study Team developed adult education demand projections using anticipated demographic changes to the Fort Carson community, military databases and information about Soldier and spouse educational needs gathered from an in-person survey conducted at Fort Hood.³

¹ For example, a Soldier's eligibility for promotion to the rank of Captain requires a bachelor's degree from an accredited educational institution.

² The Adult Education/Workforce Partnership Group was organized by PPACG and composed of civilian and military representatives of educational institutions. The Group worked and met with the Study Team over a 15-month period between January 2009 and April 2010.

³ The survey is included in Appendix A.

Adult Education Providers and Resources

The Fort Carson region offers a wide range of adult education and workforce development programs through local institutions and through opportunities for online, long distance learning. Soldiers and spouses access adult education in traditional classroom settings--which can occur on- and off-post--as well as online or “distance learning” courses. A large number of institutions provide these services.

Service access and support. ACES offers guidance in accessing adult education and workforce development services. ACES educational counselors and regional institution representatives are available on-post, and similar services are offered off-post through support staff at local campuses or through the PPWFC. Counselors explain the process of enrolling in adult education programs, including assistance with GoArmyEd,⁴ selection of institution and general programmatic guidance. Counselors can provide assistance to those already participating in adult education or transferring from other posts. Surveys of Fort Hood Soldiers indicate that Soldiers are generally well-informed about the nature and availability of adult education resources.

On-post adult education resources. Five educational institutions offer on-post courses:

- Pikes Peak Community College (PPCC);
- Colorado State University Pueblo (CSU - Pueblo);
- Embry Riddle Aeronautical University (Embry Riddle);
- Troy University; and
- University of Colorado at Colorado Springs (UCCS)

With few exceptions, on-post courses are offered in the evenings. These schools have full time staff supporting their programs and have offices in the education building.

The Study Team interviewed representatives from these institutions about their ability to meet current and future demand for courses on-post. Institutions with on-post courses have historically been able to meet demand. However, due to facility constraints, some desired courses cannot be offered on-post including those requiring laboratories and several vocational classes. Representatives also expressed concerns about meeting increased demand for future course offerings.

The education building maintains an office used by representatives from other regional schools that do not offer on-post courses but do offer either in-class off-post or online courses. The institutions with on-post representatives include Colorado Christian University, Colorado Technical University, DeVry University, National American University, Regis University, University of Phoenix and Webster University. The representatives typically hold “office hours” once or twice a week.

⁴ GoArmyEd is an online portal managed by the Army as a “gateway” to educational support and service for Soldiers participating in adult education.

The Learning Resource Center in the education building has 50 computer terminals and two full-time staff members. The staff consists of an educator and an IT position. ACES also provides a variety of testing services. The ACES staff proctors exams, which is a requirement of some distance learning courses. The staff is also certified to offer national standardized tests such as the SAT, ACT and GED. Other military specific tests, such as the Armed Services Vocational Aptitude Battery (ASVAB), are also offered through ACES.

Non-degree courses are also often offered by ACES. For example, the Basic Skills Education Program (BSEP) covers fundamentals in many subjects. This course may be taken with the purpose of college preparation or simply to gain the education needed to best perform one’s Military Occupational Specialty (MOS). Other examples of non-degree classes include speech, typing and language.

Off-post adult education resources. The Fort Carson region has many adult education institutions. Together, these institutions offer a variety of undergraduate, graduate, continuing education, workforce development and vocational programs. Exhibit V-1 lists these regional institutions and notes the educational programs available.

**Exhibit V-1.
Off-post Adult Education Programs**

Institution	Undergraduate	Graduate	Continuing Education	Workforce Development	Vocational
Colorado Christian University at Colorado Springs	✓	✓		✓	
Colorado State University Pueblo	✓	✓			
Colorado Technical University	✓	✓		✓	
DeVry University & Keller Graduate	✓	✓			
National American University	✓	✓	✓	✓	
Pikes Peak Community College	✓		✓	✓	✓
Pueblo Community College	✓		✓	✓	✓
Regis University	✓	✓		✓	
The Colorado College	✓	✓			
University of Colorado at Colorado Springs	✓	✓			
University of Phoenix, Colorado Springs Campus	✓	✓	✓	✓	
Webster University		✓			

- Notes: Undergraduate: Associates or Bachelor degree program.
Graduate: Masters or Doctorate degree program.
Continuing Education: offers classes that are for a specific business area without working towards a degree or certificate (i.e. National American University offers single courses in corporate training).
Workforce Development: courses that build individual’s professional capacity or skills (not for credit towards a degree).
Vocational: courses that are offered in a specific field, typically for blue-collar jobs, that offers a certification for entry-level employment.

As mentioned above, most of the institutions maintain an office in the education building as a resource for Fort Carson Soldiers and spouses. Many of the local institutions also have staff on-campus to serve the military community.

Pikes Peak Community College (PPCC) is located just outside the Post. Due in part to the close proximity of the campus, PPCC has traditionally had the largest historical enrollment of Fort Carson Soldiers (see Exhibit V-4). Although other regional institutions are farther away from the Post, these schools also serve a large number of Fort Carson Soldiers.

As shown in Exhibit V-1, several regional institutions offer workforce development and vocational courses. These programs are typically not degree-oriented but rather stand-alone programs intended to enhance a student's professional capacity, develop specific skills or educate a student in a specific occupation. These programs range from a one-day course, up to a several month long program. There are hundreds of workforce development and vocational courses offered at regional institutions.

Some of the industries targeted by these programs and offered off-post or online by regional institutions include:

- Healthcare and fitness;
- Project management;
- Information and Technology (IT) and Software Development;
- Sales; and
- Skilled trades (such as heating, air-conditioning technician, machining, welding and industrial electrical and mechanical maintenance).

Based on discussions with several members of the PPACG Adult Education/Workforce Partnership Group and education institution representatives, the existing supply and capacity of off-post adult education are adequate to meet current and likely future demand resulting from growth at Fort Carson.

Distance learning (online). Distance learning serves as the primary adult education delivery method for both Soldiers stationed at Fort Carson and Soldiers Army-wide. Due to time constraints and deployment schedules, this flexible educational delivery method is a popular option for both Soldiers and their spouses. Many institutions are part of a general agreement to allow military students to take courses (including online) at institutions other than their home school.⁵

The education building hosts the Colorado Online and Distance Education (CODE) program. The CODE program is a consortium of eleven Colorado institutions that have come together and developed a central database of online courses being offered at the various institutions. A representative from the consortium (a staff member from UCCS) has an office in the education building to advise those interested in taking advantage of this program. Capacity of this delivery method is substantial and can easily meet increased demand from growth at Fort Carson.

Individual Military Training (IMT). The education building is also home to Individual Military Training (IMT) courses. Soldiers are required to complete military training courses between deployments. Due to the limited window for Soldiers to take these classes, the demand is highly variable. IMT courses have priority over the college classes, but because they are offered during the day, IMT courses generally do not conflict with the evening schedule of college courses.

⁵ "Home institution" refers to the institution the Soldier is pursuing a degree from. Due to the highly mobile lifestyle of Soldiers, it is common for Soldiers to take some course through institutions other than their home institution. Most institutions have agreements with various other schools to allow for course credits to be transferred.

Spouse-specific resources. Several adult education resources in the Fort Carson region are also specifically tailored to military spouses.

The Colorado Springs military community has participated in two recent pilot programs that have provided tuition assistance to military spouses — Base Realignment and Closure Act (BRAC) and Military Spouse Career Advancement Accounts (CAA). Both programs were managed by the Pikes Peak Workforce Center (PPWFC). ACES played a coordinating role in these programs.

The BRAC program was initiated in July 2007 with the intention of assisting dislocated spouses from Fort Hood. Due to the delay in relocating Fort Hood Soldiers to Fort Carson, the program requirements were relaxed and financial assistance was made available to Soldiers and their spouses who ETS (“Expiration of Term of Service”, i.e., separate from the Army) in the region and to the Army’s Wounded Warriors. The program is set to expire at the end of June 2010.

CAA is available to spouses of active-duty Soldiers assigned to Fort Carson. The program requires that the spouse be living in the region for 12 months following the award and that courses taken are related to certain high-demand portable careers.. This pilot program has been adopted as a military wide resource and renamed MyCAA. CAA is a pilot program funded by the Colorado Department of Labor and Employment and administered by the Pikes Peak Workforce Center; this program began in 2007 and was recently extended through June 2011 and provides up to \$6,000 for military spouses with certain requirements regarding eligibility and types of training and education allowed. The Department of Defense (DoD) recently initiated a similar program under the name MyCAA, with differing requirements. For a variety of reasons, including overwhelming demand, DoD temporarily suspended the MyCAA program. As of March 13, 2010, DoD reinstated the program, but only for those already enrolled. DoD is currently reviewing long-term options for the program.

The Military Spouse Career Committee (MSCC) is a “community coalition of military, business and military spouse representatives in Colorado Springs who joined together to train, educate, inform and empower military spouses in their pursuit of meaningful employment and education.”⁶ This group offers a quarterly career track seminar for military spouses.

Current Demand for Adult Education

Fort Carson related demand for adult education and workforce development comes primarily from Soldiers and spouses of active-duty Soldiers. Additional demands arise from Department of Army civilians (DA civilians), Veterans and dependents of both these groups. The overall demand of DA civilians is relatively small in comparison with Soldiers and spouses. Furthermore, as troop levels change at Fort Carson, the incremental impact of DA civilians on demand is small. While Veterans’ demand is sizable, as troop levels fluctuate at Fort Carson, changes in demand for adult education and workforce development from this group is less volatile (especially in the short run) than Soldiers and spouses.

⁶ Colorado Military Spouse Careers’ Weblog. Online at: <http://coloradomilitaryspousecareers.wordpress.com/about/>. 2009

Fort Carson Soldier adult education demand. ACES provided the Study Team with data on current Fort Carson Soldier participation in adult education. ACES collects these data from the GoArmyEd DataWarehouse (DataWarehouse). Because GoArmyEd was launched in May of 2006 (Federal Fiscal Year 2006 [FY06]), annual data are complete for FY07 and thereafter.⁷ These data provide a rich set of information including:

- The number of Soldiers enrolled in adult education programs as well as the corresponding number of course enrollments;
- Participating Soldiers by pay grade and home institution; and
- Course enrollment by delivery method and institution.

The DataWarehouse only includes information on Soldiers receiving tuition assistance from the Army. According to representative from ACES, roughly 5 percent of Soldiers participating in adult education do not apply or receive any tuition assistance from the Army. Therefore, the estimates presented in this section slightly underestimate the number of Fort Carson Soldiers taking courses.

Number of Soldiers participating in adult education. There are many institutions, both within and outside the region, that serve as the home institution for Fort Carson Soldiers. Exhibit V-2 shows the number of Soldiers, by their home institution, who enrolled in one or more adult education courses during FY08 and FY09. The exhibit shows enrollees for each school with a Fort Carson regional campus and the combined number of Soldiers with home institutions outside the region.

**Exhibit V-2.
Number of Soldiers by
Home Institution**

Note:
Sums may not add to totals due to rounding.

Source:
BBC Research & Consulting from
DataWarehouse, 2009.

	FY08	FY09
Institutions with regional campuses		
Colorado Christian University	6	5
Colorado State University–Pueblo	45	25
Colorado Technical University	77	86
DeVry University & Keller Graduate School	70	89
Embry-Riddle Aeronautical University	42	35
National American University	74	45
Pikes Peak Community College	461	421
Pueblo Community College	0	1
Regis University	4	6
Troy University	258	146
University of Colorado–Colorado Springs	84	21
University of Phoenix	124	175
Webster University	35	30
Subtotal	1,278	1,084
Institutions without regional campuses		
	1,287	1,590
Total	2,565	2,674

About half of the Soldiers participating in adult education were associated with institutions with campuses in the Fort Carson region in FY08. During FY09 the total enrollees increased by about 100 Soldiers with a modest shift from local institutions to institutions without regional campuses.

⁷ The Federal Fiscal Year runs from October 1st through September 30th.

Soldier adult education participation rates. The DataWarehouse also provides the number of Soldiers participating in adult education by rank as shown in Exhibit V-3. The Study Team used these data to estimate the participation rates by pay grade.

**Exhibit V-3.
Fort Carson Estimated Adult Education Participation Rates**

Pay Grade	FY08			FY09		
	Enrollees	Fort Carson Soldiers	Participation Rate	Enrollees	Fort Carson Soldiers	Participation Rate
E-1	3	240	1.3%	4	280	1.4%
E-2	51	1,199	4.2%	50	1,398	3.5%
E-3	204	2,471	8.3%	203	2,882	7.0%
E-4	488	5,018	9.7%	559	5,851	9.6%
E-5	556	3,302	16.8%	583	3,850	15.1%
E-6	512	2,183	23.5%	530	2,545	20.8%
E-7	381	1,177	32.4%	336	1,373	24.4%
E-8	124	330	37.5%	133	385	34.7%
E-9	33	79	41.9%	31	92	34.1%
O-1	15	163	9.5%	19	190	10.1%
O-2	18	374	4.7%	26	436	6.0%
O-3	37	703	5.3%	45	820	5.5%
O-4	38	306	12.4%	30	357	8.5%
O-5	7	140	5.2%	2	163	1.2%
O-6	2	37	5.6%	0	43	0.0%
O-7	0	0	0.0%	0	0	0.0%
O-8	0	2	0.0%	0	3	0.0%
O-9	0	0	0.0%	0	0	0.0%
O-10	0	0	0.0%	0	0	0.0%
W-1	33	71	46.4%	36	83	43.8%
W-2	41	156	26.5%	61	182	33.4%
W-3	15	58	26.4%	19	68	28.2%
W-4	6	35	17.6%	6	41	14.8%
W-5	0	2	0.0%	0	3	0.0%
Total	2,565	18,047	14.2%	2,674	21,043	12.7%

Note: Total Fort Carson Soldier data comes from the Fort Carson Demographic Model (FCDM) developed by BBC (more details on this model are discussed in Section I).

Source: BBC Research & Consulting from DataWarehouse, 2009.

The overall participation rate for FY08 was about 14.2 percent. In FY09, the rate fell to 12.7 percent. The lower FY09 rate may be the result of the arrival of the 1st Brigade of the 4th Infantry Division (1-4ID) in FY09 Q4 as many of these Soldiers may have postponed registering for courses until becoming fully settled at Fort Carson.

These above participation rates are generally consistent with survey data from Fort Hood Soldiers and spouses transferring to Fort Carson (Fort Hood survey). This survey was conducted in the spring of 2009 by BBC and included questions related to adult education.⁸ In order to estimate adult education participation rates, BBC classified a Soldier as a likely participant if they had taken any college or vocational classes over the past 12 months and said that they planned to take college or vocational classes while stationed at Fort Carson. Based on this approach, approximately 17 percent of incoming Soldiers are considered likely to participate in adult education.

Number of courses taken by Soldiers. Exhibit V-4 shows total course enrollments for FY08 and FY09 by Fort Carson Soldiers.

**Exhibit V-4.
Number of Course Enrollments
of Soldiers by Institution**

Notes:

Due to adding and dropping of courses as well as relocating of Soldiers, these data may differ slightly from actual enrollment.

Source:

BBC Research & Consulting from DataWarehouse, 2009.

	FY08	FY09
Institutions with regional campuses		
Colorado Christian University	16	9
Colorado State University–Pueblo	119	94
Colorado Technical University	256	297
DeVry University & Keller Graduate School	187	246
Embry-Riddle Aeronautical University	122	88
National American University	182	106
Pikes Peak Community College	1,060	1,126
Regis University	15	13
Troy University	847	427
University of Colorado–Colorado Springs	108	62
University of Phoenix	334	475
Webster University	86	86
Subtotal	3,332	3,029
Institutions without regional campuses		
	3,255	3,836
Total	6,587	6,865

Using the data presented in Exhibits V-3 and V-4, the Study Team estimated the average course load for Fort Carson Soldiers in FY08 and FY09. The average course load, across all institutions, was about 2.6 courses per Soldier in both FY08 and FY09.

Soldier course enrollments by delivery method. As shown in the prior Exhibits V-2 and V-4, about half of enrolled Soldiers take courses at institutions outside the region. Exhibit V-5 shows:

- The overall distribution of course enrollments across delivery method; and
- The distribution of course enrollments across delivery method for Soldiers enrolled at institutions with regional campuses.

⁸ The survey was given to Soldiers and spouses transferring from Fort Hood to Fort Carson who volunteered to participate in the survey. Survey respondents were asked questions about themselves as well as their spouses (if applicable). In total, information was collected for 675 Soldiers — actual respondents included 250 single Soldiers, 382 married Soldiers and 43 spouses. Additional information on the survey is available in Appendix A.

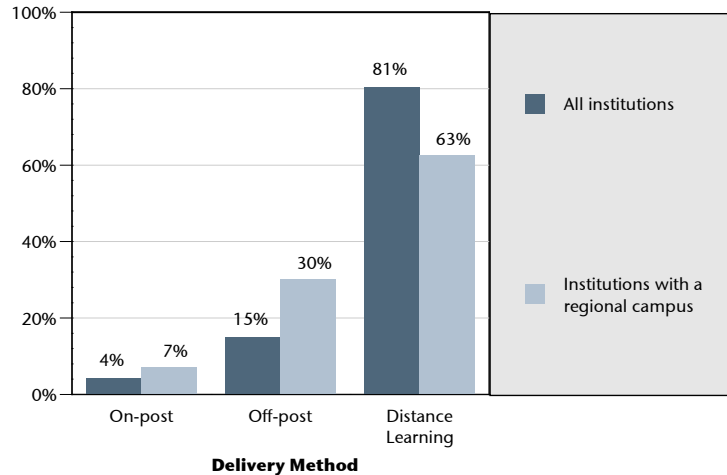
**Exhibit V-5.
Fort Carson Soldiers’
Course Enrollment by
Delivery Method (FY08
and FY09 combined)**

Notes:

Due to adding and dropping of courses as well as relocating of Soldiers, these data may differ slightly from actual enrollment.

Source:

BBC Research & Consulting from DataWarehouse, 2009.



Data from Exhibit V-5 demonstrates that even for Soldiers enrolled in courses at regional institutions, online or “distance learning” courses are popular. In-person courses taken by Fort Carson Soldiers at institutions with a regional campus accounted for just over of one-third of enrollments at regional institutions.

As part of the Fort Hood survey, Soldiers planning on participating in adult education while at Fort Carson were asked about the type of delivery method they anticipate using when registering for courses. About 25 percent expected to register for online courses only, 13 percent for in-person only and 62 percent expect to take both in-person and online courses. While these results aren’t directly comparable to Exhibits V-5, the high demand for online courses is apparent.

Soldier programs and subjects areas. The Study Team also analyzed data on the type of degree/certificate programs in which Soldiers are enrolled. These data show that of Fort Carson Soldiers enrolled in a program:

- About 40 percent of participating Soldiers were enrolled in an Associate Degree program;
- Between 30 and 35 percent were enrolled in a Bachelor Degree program;
- Nineteen to 25 percent were pursuing an External Degree (this type of degree is solely distance learning – often referred to as independent studies. These programs typically offer more flexibility in the curriculum); and
- The remaining Soldiers were enrolled in Master Degree programs (around 5 percent) and Certificate programs (1 to 2 percent).

The DataWarehouse also tracks Soldier course enrollments by subject area. Core classes such as English, mathematics and history are among the top subjects. Science and arts and humanities are other core subjects with high enrollment.

The program-specific subjects receiving the highest level of course enrollments include business-related courses (e.g., management, business administration, management information systems and accounting) and criminal justice. Other popular programs areas include psychology (required for

those Soldiers studying criminal justice), communications, sociology, computer science, biology, political science, economics and philosophy.

Spouses participation in adult education. Currently, there is no comprehensive data source tracking participation of Fort Carson spouses in adult education.⁹ At a national level, the 2008 Survey of Active Duty Spouses published by the DoD indicated that approximately 22 percent of all active-duty Army spouses were enrolled in school.¹⁰ In general, Soldier deployment did not impact the proportion of spouses (military-wide) enrolled in school. These findings are consistent with the 2006 version of this survey.

Results from the Fort Hood survey conducted by the Study Team are consistent with this participation rate. BBC estimates that approximately 20 percent of these spouses will participate in adult education while stationed at Fort Carson.

In the Fort Carson Demographic Model (FCDM),¹¹ the number of Fort Carson spouses living in the Fort Carson region is estimated by quarter. The average quarterly population of Fort Carson spouses was estimated to be about 9,000 in FY08 and about 10,400 in FY09. Assuming a participation rate of 22 percent, there were approximately 1,980 spouses participating in adult education during FY08 and approximately 2,300 in FY09.

Spouse enrollment by subject area. Spouses often select educational paths leading to careers that are in high-demand in most locations around the country – often referred to as “portable” careers. The DoD encourages military spouses to pursue these occupations and has identified the following careers that fit well with the highly mobile military lifestyle:

- ***Health care:*** nursing, health technician (radiology, x-ray, and chemo), pharmacology, dental hygiene, and medical record management;
- ***Education:*** teachers and/or teacher aides in elementary, secondary and post-secondary schools, early childhood education, curriculum development and administration;
- ***Financial services:*** banking, mortgages, insurance, investments, real estate and financial counseling;
- ***Information technology:*** computer networking, systems, administration, web development, software design and help desk administration; and
- ***Construction trades:*** labor occupations such as electrician, plumber, brick mason, and carpenter.¹²

Other industries that encompass some portable occupations include human resources, hospitality, homeland security and business administration.¹³

⁹ Some of the regional institutions gather enrollment information on military family members; however, the databases do not identify the military installation the member is associated with.

¹⁰ Defense Manpower Data Center. *2008 Survey of Active Duty Spouses*. 2009

¹¹ Using data from several sources, BBC Research and Consulting developed a model to estimate and project demographic characteristics of the Fort Carson community. The details of this model are discussed in Section I.

¹² Office of the Deputy under Secretary of Defense, Military Community & Family Policy. *DoD Report on Military Spouse Education and Employment*. 2008.

Not surprisingly, adult education and workforce development/training related to these professions are typically the areas of greatest demand from military spouses. For example, in 2007 the career plans for over 21 percent of military spouses were related to teaching or health care.¹⁴ Representatives from regional institutions also identified degrees related to these careers as the most popular among military spouses.

Participation data for the CAA program (described previously) provides some insight into characteristics of the spouses enrolled in adult education and the degrees they are pursuing. As of June 2009, 377 spouses stationed at Fort Carson had participated in the CAA program. All participants had at least a high school diploma (a requirement of the program) and about 15 percent had completed college. In order to receive funding, participants were required to take courses related to one of the “portable” career fields previously listed. Almost 60 percent of participants registered for classes related to health care and over 16 percent in classes related to education.

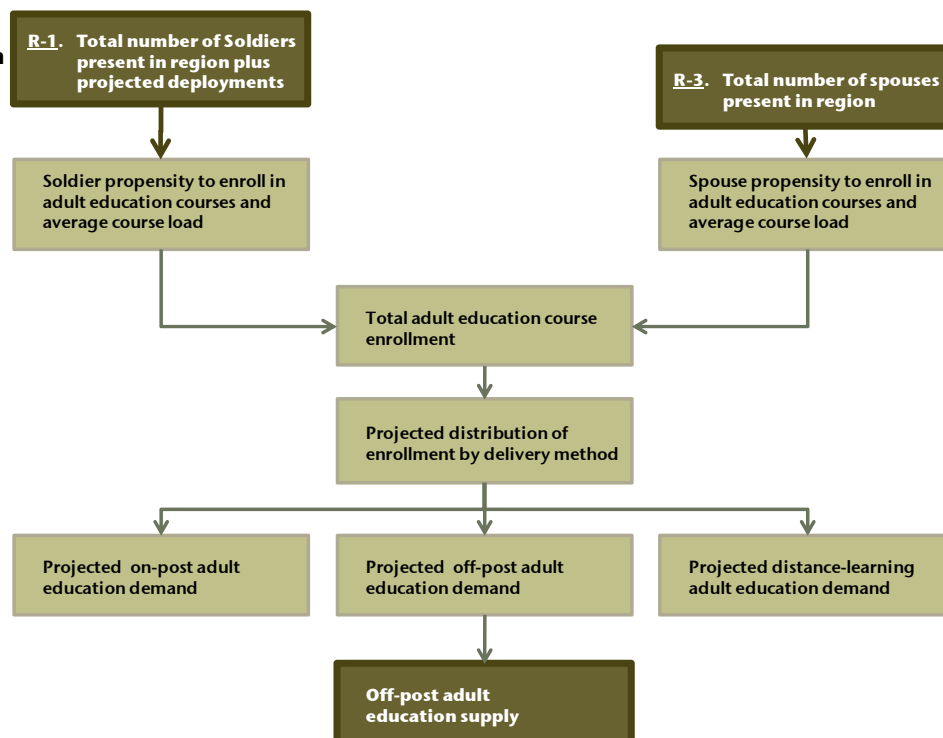
Projected Demand for Adult Education

The methodology underlying adult education demand projections is discussed in this section. Projections are based on information from military databases, observed trends in the adult education participation by the current population (previously discussed) and data from the Fort Hood survey.

Projection methodology. Exhibit V-6 provides an overview of the education demand projection methodology.

Exhibit V- 6. Adult Education Demand Modeling Approach

Source:
BBC Research &
Consulting, 2009.



¹³ Military Spouse Career Advancement Account (CAA) Demonstration Program. *Frequently Asked Questions*. 2008.

¹⁴ National Military Family Association. *Education & Military Spouse: The Long Road to Success*. 2007.

Additional detail on the Adult Education Demand Model (AdEd Model) developed by BBC, including the specific modeling approach, data sources and preliminary findings, is provided below.

Projected Soldier adult education demand. Projected demand for adult education from Fort Carson Soldiers is based on the following components:

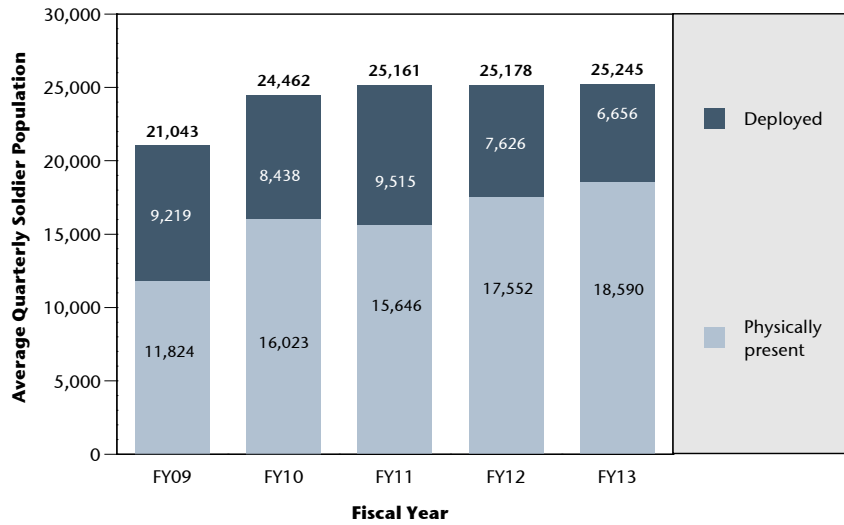
- Number of Soldiers physically present at Fort Carson plus the number of Soldiers assigned to Fort Carson but deployed (by pay grade);
- Adult education participation rate for Soldiers (by pay grade);
- Average course load for participating Soldiers; and
- Course enrollment rates across delivery methods.

Soldier population. Total Fort Carson Soldier data come from the FCDM. Exhibit V-7 shows the estimated Soldier population in FY09 and the projected population in FY10 through FY13.

**Exhibit V-7.
Fort Carson Projected
Soldier Population**

Note:
The FCDM projects population by fiscal year quarter. Average annual population is reported here.

Source:
BBC Research & Consulting, 2010.



Education participation rates. The next step in projecting Soldier adult education demand requires estimating participation rates by pay grade. In the AdEd Model, the estimated participation rates are equal to the weighted average of the observed participation rates in two most recent fiscal years.¹⁵ Exhibit V-8 shows the FY08 and FY09 adult education participation rates and the projected participation rates based on these data.

**Exhibit V-8.
Estimated and Projected Participation Rates**

	Estimated		Projected	Estimated		Projected	
	FY08	FY09	FY10-FY13	FY08	FY09	FY10-FY13	
Total enrollment	2,565	2,674	--	Overall average (continued)			
Overall average	14.2%	12.7%	13.4%	O-4	12.4%	8.5%	10.4%
E-1	1.3%	1.4%	1.4%	O-5	5.2%	1.2%	3.2%
E-2	4.2%	3.5%	3.9%	O-6	5.6%	0%	2.8%
E-3	8.3%	7.0%	7.6%	O-7	0%	0%	0%
E-4	9.7%	9.6%	9.6%	O-8	0%	0%	0%
E-5	16.8%	15.1%	16.0%	O-9	0%	0%	0%
E-6	23.5%	20.8%	22.1%	O-10	0%	0%	0%
E-7	32.4%	24.4%	28.3%	W-1	46.4%	43.8%	45.1%
E-8	37.5%	34.7%	36.1%	W-2	26.5%	33.4%	30.0%
E-9	41.9%	34.1%	37.9%	W-3	26.4%	28.2%	27.3%
O-1	9.5%	10.1%	9.8%	W-4	17.6%	14.8%	16.2%
O-2	4.7%	6.0%	5.4%	W-5	0%	0%	0%
O-3	5.3%	5.5%	5.4%				

Note: The model has the capability to incorporate new adult education data as they become available. For example, when FY10 data are available, the observed participation rates will be incorporated and projected rates for FY11-FY13 will equal the weighted average of FY09 and FY10 participation rates.

Source: BBC Research & Consulting, 2009; DoD 2009.

The total Soldier population data shown in Exhibit V-7 are also projected by pay grade. The application of participation rates by pay grade to projected Soldier total population allows projections of Soldier participation in adult education.

Enrollment. Projected enrollment, or the total Soldier demand for adult education, is computed by multiplying the total Soldier participation by the average projected course load in a fiscal year. This factor is derived following the same approach used for participation rates (e.g., based on the data from the two most recent years). As previously discussed, the average course load for Fort Carson Soldiers was about 2.6 courses per participating Soldier in both FY08 and FY09. In the current model, projected enrollment is computed using an assumed course load of 2.6.

Exhibit V-9 shows estimated Soldier participation and total enrollment in FY09 and projected Soldier participation and total enrollment in FY10 through FY13.

¹⁵ Weights are based on the total Soldier enrollment in the each fiscal year.

**Exhibit V-9.
Soldier Projected Participation in Adult Education**

	FY09	FY10	FY11	FY12	FY13		FY09	FY10	FY11	FY12	FY13
Total Soldier Population	21,043	24,462	25,161	25,178	25,245	Soldier Adult Ed Participation (continued)					
Soldier Adult Ed Participation						O-5	2	6	6	6	6
E-1	4	4	5	5	5	O-6	0	1	1	1	1
E-2	50	63	65	65	65	O-7	0	0	0	0	0
E-3	203	256	263	263	264	O-8	0	0	0	0	0
E-4	559	655	674	674	676	O-9	0	0	0	0	0
E-5	583	715	735	736	738	O-10	0	0	0	0	0
E-6	530	654	673	673	675	W-1	36	43	45	45	45
E-7	336	452	465	465	467	W-2	61	63	65	65	65
E-8	133	161	166	166	166	W-3	19	22	22	22	22
E-9	31	40	42	42	42	W-4	6	8	8	8	8
O-1	19	22	22	22	22	W-5	0	0	0	0	0
O-2	26	27	28	28	28	Total	2,674	3,289	3,383	3,385	3,394
O-3	45	52	53	53	53	Total enrollment	6,865	8,444	8,795	8,801	8,825
O-4	30	43	45	45	45						

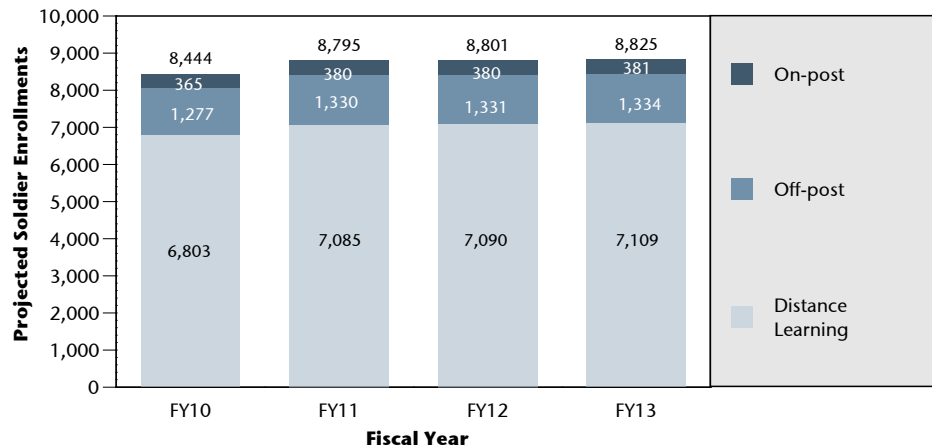
Source: BBC Research & Consulting, 2009.

Participation and enrollment in adult education is projected to be relatively constant between FY10 and FY13 — consistent with the small changes in Soldier population over the same period. Approximately, 3,300 to 3,400 Fort Carson Soldiers are expected to enroll in adult education courses with a total demand between 8,500 and 8,800 courses per fiscal year.

Delivery method. The Study Team also projected the distribution of Soldier course enrollments across delivery methods. Again, the factors derived for these projections are based on adult education data from the two most recent years (currently FY08 and FY09). Projected enrollment by delivery method in the current model is as follows: 4.3 percent in on-post in-person courses, 15.1 percent in off-post in-person courses, and 80.6 percent in distance learning/online courses. Exhibit V-10 shows the projected distribution of enrollments across delivery methods.

**Exhibit V-10
Projected Soldier
Course Enrollments
by Delivery
Methods**

Source:
BBC Research & Consulting,
2009.



Possible impacts to future Soldier demand. Several factors may arise in the future that could influence Soldier demand for adult education. These factors may affect the level of participation and demand for specific courses. Factors include:

- ***State of the economy.*** During slow economic periods an increase in participation may be observed. As employment opportunities in specific industries change overtime, Soldiers may demand different courses from those currently offered.
- ***Military conflicts abroad.*** When the U.S. is engaged in conflicts abroad, the level of adult education participation is generally lower. This occurs because deployments are more common and Soldiers are more focused on their military-related responsibilities.
- ***Tuition assistance.*** Soldier participation is generally contingent on the ability to receive tuition assistance. The ease and level of assistance affects the number of Soldiers participating in adult education.
- ***Distance learning.*** The increasing role of distance learning in Soldier curriculum has decreased demand for regional in-person courses and educational resources from regional institutions. Future trends in preferred delivery method may affect regional demand.

While this list is not exhaustive, it highlights factors that may lead to differences in the projections shown previously.

Projected spouse adult education demand. Projected demand for adult education from Fort Carson spouses is based on the following components:

- Number of spouses present at Fort Carson;
- Adult education participation rate for spouses;
- Average course load for participating spouses; and
- Course enrollment rates across delivery methods.

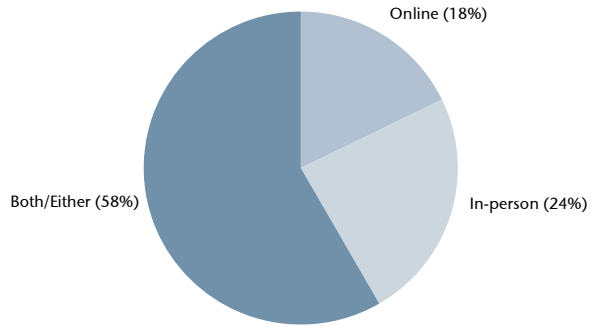
As previously discussed, the FCDM estimates the number of Fort Carson spouses living in the Fort Carson region by fiscal year quarter. The FCDM also models the projected quarterly spouse population out through FY13.

The participation rate used to project the number of spouses participating in adult education is the same used to estimate participation above — 22 percent. This rate is based on data from 2008 Survey of Active-Duty Spouses as well as the Fort Hood survey. An average annual course load of 3 courses was assumed for projecting enrollment, which was slightly higher than Soldiers (2.6).

The projected distribution of spouse enrollment across delivery method is derived based on data from the Fort Hood survey. Exhibit V-11 shows spouses' preference for different delivery methods.

**Exhibit V-11.
Delivery Method Preferences of Spouses**

Source:
BBC Research & Consulting, 2009.



Based on the Fort Hood survey data, spouses appear to have a greater preference for in-person courses than Soldiers. In the model, the Study Team assumed spouses take half of their classes online and half in-person. Enrollment in on-post courses is assumed to be 4 percent of total enrollment (approximately the same proportion observed for Soldiers) and off-post enrollment being 46 percent.

Exhibit V-12 shows the projected spouse population, adult education participation, total enrollment and distribution of enrollment by delivery method.

**Exhibit V-12.
Projected Spouse Population and Adult Education Participation**

Source:
BBC Research & Consulting, 2009

	FY09	FY10	FY11	FY12	FY13
Total Spouses	10,412	12,370	12,626	12,856	13,006
Spouse Adult Ed Participation	2,291	2,721	2,778	2,828	2,861
Total Spouse Enrollment	6,872	8,164	8,333	8,485	8,584
On-post	275	327	333	339	343
Off-post	3,161	3,755	3,833	3,903	3,949
Distance learning/on-line	3,436	4,082	4,167	4,242	4,292

The general growth pattern follows growth projections for Soldiers. Spouse participation will be relatively constant between FY10 and FY13. The largest increase in participation is projected to occur between FY09 and FY10. In FY09, the estimated participation of Fort Carson spouses in adult education was about 2,300; in FY10 the projected participation is about 2,700—a 19 percent increase.

Possible impacts to future spouse demand. Several factors may arise in the future that could also influence Army spouse demand for adult education. The factors influencing Soldier demand will also impact spouse demand including the state of the economy, status of conflicts abroad, availability of tuition assistance and trends related to distance learning.

Partnership Group members have observed a recent increase, and expect a further increase in the future, in spouse participation resulting from greater access to tuition assistance. According to Partnership Group members, many spouses have been applying for tuition assistance through the MyCAA program. The Post-9/11 GI Bill allows Soldiers to transfer unused educational benefits to their spouses — greatly stimulating participation by spouses. While the MyCAA program's long-term future remains in flux, based upon spouse demand for the program and the transferability of the Post 9/11 GI bill, increased demand for adult education services is anticipated.

Access to child care contributes to the level of spouse participation in adult education. The Army will only reimburse child care costs for facilities approved as meeting Army standards. Currently, approved child care facilities are located on-post and off-post at Pikes Peak Community College (PPCC) and University of Colorado at Colorado Springs (UCCS).

Adult Education Supply and Demand Issues

As noted above, the existing student capacity and diversity of adult education offerings are sufficient to meet current demands as well as the modest demand increases associated with anticipated growth at Fort Carson. However, the Adult Education/Workforce Partnership Group has identified perceived gaps in the provision of adult education services. Highest priority needs include:

- An improved state-of-the-art education facility on-post;
- Data and demographic information that schools could use to better predict student curriculum requirements;
- Improved systems for transferring military course credits to public institutions, including additional collaboration agreements;
- Clear identification of community workforce needs and a process for matching school programs with workforce needs; and
- Improved services to military members preparing to retire/separate including improved skill training for a civilian job.

The following discussion offers a starting point for further exploration of these topics.

Adequacy of education building and ACES resources. ACES personnel and representatives from regional institutions expressed concern with ACES' ability to maintain the effectiveness of existing programs as Fort Carson grows. The two central issues are the current facility capacity and limited staff.

Concerns with the condition, size and programming constraints of the existing facility have been identified in prior studies. Key issues include: poor bathroom conditions, small waiting areas, poor Americans with Disability Act (ADA) accessibility (e.g., elevator and offices) and general physical constraints that affect course size and number of offerings. The facility is not equipped to offer certain courses, such as those requiring laboratories and many vocational courses. Furthermore, due to the size constraints at the education building, there are limitations to the number of courses that can be offered in a given term.

The physical condition of the facility has negatively impacted on-post programs according to the representatives of the institutions. Enrollees in adult education taking in-person courses often elect to take these courses off-post in more modern, technologically advanced and comfortable classrooms. Furthermore, many institutions report difficulties recruiting teachers to teach courses on-post for these same reasons.

For enrollees who prefer or need to take in-person classes, on-post courses are attractive due to child care availability and convenience (proximity). Although off-post classes appear to have sufficient space to meet increases in demand, the limitations of on-post courses may deter some potential students from entering a degree or vocational program.

In June 2009, the building's bathroom facilities were updated and, as a result of a recent audit of the facility, there are plans to install an elevator for improved access for persons with disabilities. There were plans to construct a new education facility; however, this now appears unlikely.

In addition to facility constraints, there are shortages of ACES support staff, particularly counselors. ACES counselors are the first contact point for Soldiers and spouses interested in participating in adult education. Increased demand for adult education as a result of growth at Fort Carson will exacerbate these shortages unless additional staff is hired. Long wait times may be a deterrent for potential students pursuing adult education. During interviews, several of the Adult Education/Workforce Partnership Group members discussed the importance of having accessible and informed counselors available for those participating or planning to participate in adult education. Many suggested that participants find the GoArmyEd portal to be complicated and frustrating, which makes the need for effective counseling that much more important. The current understaffing of counselors was a common comment during interviews conducted during the course of this study.

Constraints in the ability to expand the Army IMT program are also a concern. At the time of this report, IMT classes are offered only during the day and therefore do not conflict with adult education classes. ACES personnel indicated scheduling of evening IMT courses could occur in the future if demand for IMT cannot be satisfied during the existing schedule. Evening IMT would reduce the facility's capacity for other adult education courses.

Reaching out to prospective students. Results from the Fort Hood survey demonstrated a substantial disparity between the proportion of Soldiers/spouses who plan to take courses and the proportion that actually do.

Exhibit V-13 shows the proportion of Soldiers by pay grade category planning to take either college or vocational courses while they are stationed at Fort Carson. Also shown in the exhibit is the proportion of Soldiers by pay grade that have taken either a college or vocational course in the past 12 months, and plan to take classes while stationed at Fort Carson.

**Exhibit V-13.
Adult Education
Participation of
Surveyed Soldier**

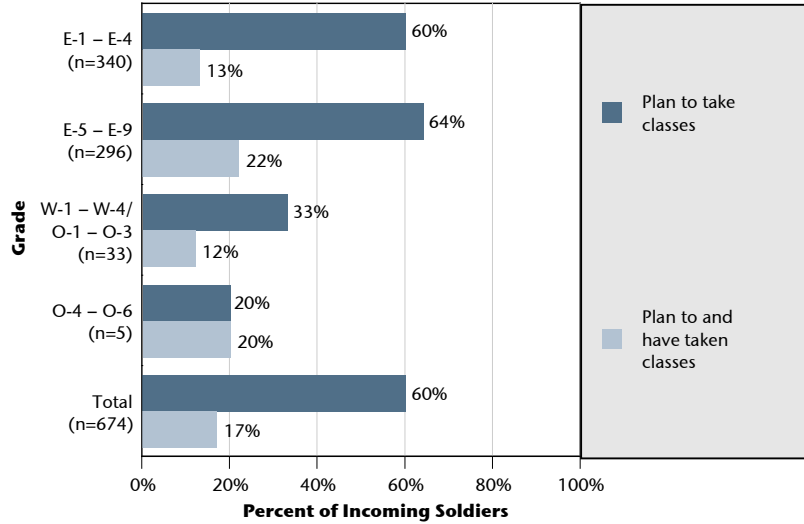
Note:

The survey was given to Soldiers and spouses transferring from Fort Hood to Fort Carson who volunteered to participate in the survey. Survey respondents were asked questions about themselves as well as their spouses (if applicable). In total, information was collected for 675 Soldiers – actual respondents included 250 single Soldiers, 382 married Soldiers and 43 spouses.

Do you [Soldier] plan to take any college or vocational classes while you are stationed at Fort Carson?

Have you [Soldier] taken any college or vocational classes over the past 12 months?

Source:
BBC Research & Consulting, 2009.



Overall, 60 percent of the incoming Soldiers from the survey plan to take classes. However, only 17 percent of the Soldiers that plan on taking classes at Fort Carson have actually taken a course in the last 12 months. Furthermore, the historical participation rate of Fort Carson Soldiers in the adult education is about 13 percent (Exhibit V-3).

The same results from the Fort Hood survey were found for spouses. Exhibit V-14 shows the proportion of spouses by Soldier pay grade planning to take either college or vocational courses while they are stationed at Fort Carson. Also, shown is the proportion of spouses that have taken either a college or vocational course in the past 12 months, and plan to take classes while stationed at Fort Carson.

**Exhibit V-14.
Adult Education
Participation of
Surveyed Spouses**

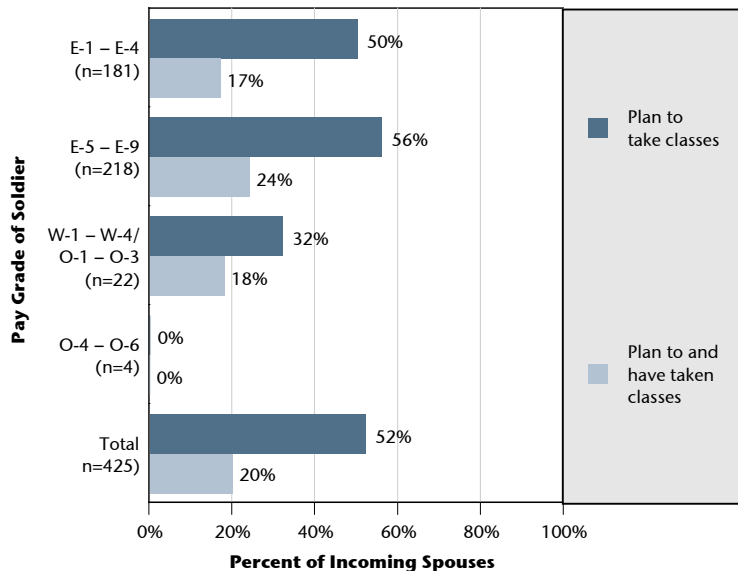
Note:

The survey was given to Soldiers and spouses transferring from Fort Hood to Fort Carson who volunteered to participate in the survey. Survey respondents were asked questions about themselves as well as their spouses (if applicable). In total, information was collected for 675 Soldiers and 425 spouses – actual respondents included 250 single Soldiers, 382 married Soldiers and 43 spouses.

Do you [spouse] plan to take any college or vocational classes while you are stationed at Fort Carson?

Have you [spouse] taken any college or vocational classes over the past 12 months?

Source:
BBC Research & Consulting, 2009.



Overall, 52 percent of the spouses plan to take classes. However, only 20 percent of the spouses that plan on taking classes at Fort Carson have actually taken a course in the last 12 months.

The 2008 Survey of Active Duty Spouses reports similar findings. Approximately 22 percent of Army spouses were participating in adult education, while 50 percent indicated that they would like to be in school.

These findings suggest that a substantial number of both Soldiers and spouses are interested in participating in adult education, but do not enroll in a program.

Adult education data needs. The Partnership Group recognized that more detailed data on military students and their educational needs is central to understanding the needs and characteristics of the military community regarding adult education. Regional institutions should consider collecting consistent and more extensive data on military (Soldier and spouses) student educational participation and attainment. A commitment of resources, including time and funding, to develop and implement an effective data collection system would provide regional stakeholders in adult education with a tool to maintain current knowledge of the military community they serve and the community's needs.

Course credit transferability. Due to the highly mobile nature of military life, adult education programs have been developed to accommodate Soldiers and spouses. For example, when a Soldier or spouse wants to begin working towards a degree they start by meeting with an ACES counselor to select a degree plan and the appropriate school. Then they typically meet with a representative of the school and develop a Service Members Opportunity Colleges (SOC) degree program (SOCAD). SOCAD is a system of college curriculum networks designed by SOC for Army Soldiers and their adult family members. Networks consist of groups of colleges and universities that have agreed to accept each other's courses in a particular program of study. Students can move freely among the colleges in a network without being reevaluated or worrying about whether or not courses will transfer. The enrollee selects a "home" college, but can take approved courses at the various institutions within the network.

However, Partnership Group members identified the difficulty in transferring military course credit to regional public colleges and universities. Soldiers often take higher education courses through the Army covering topics that could apply towards a degree or certification.¹⁶ However, most regional schools will not transfer these courses for credit.

Transferability of licenses and certifications. For certain occupations, relocating spouses are required to obtain certification or licenses in the new state of residence. However, in many cases, states will not recognize certifications or licenses from other states. Before issuing a new certification or license, these states typically require the applicant to complete additional courses and/or take applicable exams. These obstacles cause delays for spouses seeking employment and can be costly.

¹⁶ Examples include emergency response (ER) training, first aid and leadership training.

Compared with the other states, for many occupations, it is relatively easy for military spouses moving to Colorado to transfer a certification/license.¹⁷ Two examples are nursing and teaching. However, Colorado does not recognize out-of-state certifications or licenses for several occupations including occupational therapy. Representatives from the Partnership Group expressed the importance of working with Colorado legislators to develop or revise statutes to ensure military spouses are able to transfer certifications or licenses for all or most occupations.

Regional Workforce Needs

The Partnership Group identified the high potential value in linking community workforce needs and training/education programs for Soldiers and spouses. Several efforts by other regional groups have been made to address this need for the region as a whole. The Study Team identified relevant studies, reports and on-going initiatives. The key findings and recommendations are summarized below.

Operation 60Thirtyfive regional economic development study. Operation 60ThirtyFive is a comprehensive regional economic development strategic plan for the Pikes Peak region. Various community, government and business organizations commissioned this study.¹⁸ In November 2009, an Action Plan was released outlining recommendations for “connecting, networking and leveraging important economic development, education, workforce and industry assets to strengthen existing companies, foster community collaboration all while making the region more competitive for new industry opportunities.”¹⁹

A target industry analysis was conducted as part of this project to identify current and emerging industries. Five target industries were identified including:

- Software and Information Technology;
- Renewable Energy;
- Aerospace/Defense/Homeland Security;
- Sports, Health and Wellness; and
- Emerging Industries/Entrepreneurs.

During the implementation of the Action Plan, representation from the Partnership Group is needed to ensure the Fort Carson community is recognized. Involvement in the implementation will also inform the Partnership Group of workforce needs and the current resources to link these needs with education.

¹⁷ Harriman, Jacline, Western Region State Liaison. Military Community and Family Policy – Department of Defense. Personal communication with Josh Sidon, BBC Research & Consulting, June 24, 2009.

¹⁸ The project sponsors included Boeing, The Broadmoor Hotel, Bryan Construction Inc, City of Colorado Springs, City of Fountain, Colorado Springs Utilities, Colorado Springs Regional Economic Development Corporation, El Paso County, The El Pomar Foundation, First Business Brokers, Greater Colorado Springs Chamber of Commerce, The Gill Foundation, Keller Homes, LaPlata Communities, Norwood Development Group, Pikes Peak Association of Realtors, Pikes Peak Workforce Center, University of Colorado – Colorado Springs and Wells Fargo.

¹⁹ Angelou Economics. Final Report: *Operation 60ThirtyFive: Action Plan. November 2009*. Available online: www.operation6035.com/documents/ActionPlan.pdf

Several of the action strategies, outlined in the plan, directly address linking the workforce with education. For example:

- Develop a regional entrepreneurship resource portal and training initiative;
- Proactively focus on talent retention and recruitment for major employers; and
- Establish an informal College/University/Community College economic development working group.

The underlying recommendation of this Action Plan is the importance of the collaboration among all stakeholders in the region.

Two other noteworthy findings of this project were identified:

- The region's population of the young professional demographic (25-44) is decreasing; and
- Results of a survey of regional businesses showed that only 10 percent had used the region's workforce development and training assets represented by the PPWFC, PPCC and others.

City of Colorado Springs 2009 Strategic Plan. In the 2009 Strategic Plan, the City of Colorado Springs developed prioritized goals to address major issues facing the city over the next five years. One of the five goals – economic vitality – is closely connected with linking the workforce with regional education. The goal seeks collaboration and partnership with city enterprises, other public entities, private entities and the military to support economic development efforts that attract, retain, and create quality jobs.

This goal requires identifying target areas for economic development and reaching out to regional economic development entities. Furthermore, the city plans to work closely with military leadership to better serve the military community and to incorporate military members and their families into the local community. The Partnership Group should investigate a possible role for adult education as part of this collaboration.

Colorado Springs Regional Economic Development Corporation (EDC). EDC is a privately-funded organization whose sole purpose is to provide primary employers with complementary, comprehensive relocation and expansion services. EDC is a key sponsor of the Operation 60Thirtyfive strategic plan.

EDC has also identified target sectors for 2009 including aerospace/defense, biotechnology/medical device manufacturing, data networking and storage, homeland defense/security, national nonprofit corporations and sports organizations, renewable energy and web-based IT companies.²⁰

²⁰ Colorado Springs Regional Economic Development Corporation. Report on the Economy. January 2009.

Demand occupations identified by PPWFC. PPWFC has identified occupations in demand in the Pikes Peak region including

- Healthcare including nursing, radiology technology, occupational, respiratory and physical therapy;
- Commercial trucking;
- Computer information technology;
- Skilled trades, including electricians, plumbers, pipe fitters and electrical line constructors;
- Law enforcement for city, county, and state;
- Homeland security;
- K-12 teaching, especially science, math, technology and special education;
- Engineering; and
- Business and financial operations.²¹

PPWFC states that this list is not exhaustive, but represents occupations that have been in demand in the region and that demand has remained resilient overtime. In addition, PPWFC has identified industries that may emerge or re-emerge in the region and provide occupational opportunities including construction, weatherization, renewable energy technology, information technology, hospitality, retail, public health, wildfire management, biomedical engineering and early childhood education.

Soldier and spouse adult education and workforce needs. As discussed previously, data indicate that the two most popular areas of study for Soldiers are business-related degrees and criminal justice. Both of these degrees align with occupations in high demand and target industries.

For spouses, the most common career paths include healthcare-related and education-related professions. Healthcare is recognized as a target industry and high demand occupation. Education, especially K-12, is identified as a high demand occupation by PPWFC.

By engaging and collaborating with the entities currently involved in the strategic plan discussed above, the Partnership Group can help inform both Soldiers and spouses of target industries, and identify the resources available to access these industries. Furthermore, these collaborative efforts may present opportunities for the Partnership Group to find resources for the other unmet needs.

²¹ Pike Peak Workforce Center. *Demand Occupations*. 2009. Accessed November 23, 2009 at: <http://www.ppwfc.org/page.php?s=181>.

Recommendations

After reviewing the findings presented in this report, the Study Team worked with the Partnership Group to identify several recommendations:

- Pursue forms of funding and collaboration opportunities to obtain the investment needed to build a new education facility on or off Fort Carson.
- Engage existing regional economic development collaborations to ensure the Fort Carson community is represented in regional efforts to link adult education with workforce needs. Participation will also ensure that the Fort Carson community is informed of current high demand occupations and industries targeted for future growth.
- In order to address adult education issues in the future, shift responsibility for identifying, coordinating, and implementing adult education issues from the Adult Education/Workforce Partnership Group to the Colorado Advisory Council on Military Education (ACME).
- Coordinate with other Growth Plan partnership groups to education and training needs in areas where gaps have been identified, such as early care and education, behavioral health services, and medical specialties.
- Develop and implement a regional data collection system to track participation of the military population (including Soldiers, spouses, dependents and Veterans) in adult education.
- Continue to work with educational institutions to recognize Army courses that may be transferable to civilian institutions
- Continue to work with state legislators and regulatory agencies to streamline/facilitate transferability of professional licenses and certifications from other states.