Options for Educating Students Attending Department of Defense Schools in the United States

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Preface

The U.S. Department of Defense (DoD) sponsored a study to evaluate the mission of educating military-connected children in the contiguous United States (CONUS). The DoD Education Activity (DoDEA) currently operates or contracts with local educational agencies to operate schools on 15 CONUS installations. DoDEA sponsored the RAND National Defense Research Institute project reported here to research and evaluate the options for educating military-connected children on these 15 installations.

This report identifies the set of feasible options for educating military-connected children at these installations and determines which options are feasible at each installation. It evaluates the feasible options in terms of expected school quality, costs, and implementation considerations. It also specifies the construction and implementation implications for each feasible option. We intend the report to inform decisionmakers and stakeholders in DoD, as well as in the states, communities, and local education agencies that the options considered might affect.

This research was sponsored by the Department of Defense Education Activity and conducted within the Forces and Resources Policy Center of the RAND National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Navy, the Marine Corps, the defense agencies, and the defense Intelligence Community.

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Summary

Background

Most military-connected children in the contiguous United States (CONUS) attend public schools operated by local educational agencies (LEAs). But 10 U.S.C. 2164 authorizes the U.S. Department of Defense (DoD) to operate schools on military installations in the United States. Section 2164 currently states that the Secretary of Defense may open a new DoD-operated school only upon "a determination that appropriate educational programs are not available through a local educational agency for dependents . . . residing on a military installation in the United States." These schools are called Domestic Dependent Elementary and Secondary Schools (DDESS) and are open to military-connected children who reside on the military installations their sponsors (generally, their parents) serve.

Although most of the previous federally operated schools in CONUS have been closed or transferred to LEAs, essentially no transfers have occurred since 1973. In addition, no new installations have been designated as requiring DDESS during that period. Today, there are 13 CONUS installations with DDESS. Establishment of federally operated schools at these locations was driven by either reluctance to send military-connected children to segregated schools in the Southeast after the military services were desegregated or the fact that local areas were too rural to support schools adequately. In addition, at two installations, rather than developing and operating schools, DoD has established contractual arrangements to provide education. Such special arrangements generally result when a state does not accept responsibility for educating military-connected students who reside on federal property. One of the DDESS installations, West Point, also has a special arrangement that DoD voluntarily established to support the education of high school students. Thus, out of 204 CONUS installations, DoD takes responsibility for education of military-connected children at 15 installations, through either DDESS or special arrangements.

Although Section 2164 sets criteria to designate new installations as requiring DDESS, the law does not require these criteria to be applied to justify the continued operation of existing schools. To help make decisions about whether to continue the present arrangements, Department of Defense Education Activity (DoDEA) sponsored the RAND National Defense Research Institute to conduct this study.

As of fiscal year (FY) 2014 (FY14), 24,441 students attend schools at 13 DDESS installations. Special arrangements, in which DoDEA contracts an LEA to operate schools on the installation or to educate students at nearby LEA schools, serve three installations with

1,470 students.[1] In all, there are 25,911 DDESS and special arrangement students. At many of the installations, families live off base and send their children to local schools, so DDESS and special arrangements serve about one-quarter of the total number of military-connected children at these 15 installations. More generally, 4 percent of CONUS military-connected school-age children attend DDESS or special arrangement schools.

Study Objectives

In conducting this study, we drew on the analysis of four earlier studies on options for the present DDESS. The study objectives were to do the following:

- Identify the set of feasible options for educating military-connected children at the 15 CONUS installations, and determine which options are feasible at each installation.
- Evaluate these options in terms of expected school quality, costs, and implementation considerations.
- Specify the construction and implementation implications for each feasible option.

Options

This study drew from several studies that addressed similar or related topics in the past decade. From this work, we identified six potentially feasible options for the education of military-connected children:

1. **status quo:** Continue to operate DDESS and special arrangement schools.
2. **transfer to LEA:** Transfer students and facilities (if the LEA desires to retain the facilities).
3. **contract with LEA:** Contract with an LEA to operate on-base schools (similar to the present special arrangements).
4. **coterminous district:** Establish a new LEA under state law covering the full installation area.
5. **individual charter schools:** Establish individual charter schools under state law.
6. **contract with education management organizations (EMOs):** EMOs are for-profit school management organizations that may operate charter or traditional public schools. Charter management organizations (CMOs) are nonprofit operators of public charter schools. Under this option, DoD would contract with an EMO or CMO to manage all or some set of the existing schools.

In three of these options—options 1, 3, and 6—DoD would remain responsible for on-base schools. In options 2, 4, and 5, DoD would transfer responsibility to another entity. We assume that, under the scenarios in which DoD maintains responsibility, it also retains ownership of school facilities and responsibility for all maintenance, facility modernization, and ultimate replacement. Under a transfer of ownership, the legal title to school buildings would pass

[1] One installation, West Point, has both DoDEA and special arrangement schools.

to the LEA or individual charter school, which would become responsible for all maintenance, modernization, and eventual replacement.

Approach and Data Sources

We began by comparing implementation requirements under each option and assessing the feasibility of each option in general and at each installation. We then compared the anticipated quality and cost of education under each option, both in general and for each installation. We also considered the implications of the options for the planned military construction to replace or renovate aging DDESS and special arrangement schools. Finally, we identified pathways for making the decision and implementation steps required.

We used a mixed-method analysis and multiple data sources to examine the six alternatives for educating military-connected children in terms of implementation, quality, and cost. We reviewed previous studies and state and federal laws. We used available secondary data on school performance, teacher qualifications, and services in both DDESS and LEA schools. We also analyzed financial data from DDESS, LEAs, and the U.S. Department of Education. We interviewed nearly 400 stakeholders, primarily from DDESS, including superintendents, principals, and a random selection of teachers, counselors, and parents. We also interviewed LEA superintendents, state officials, and school management organizations.

The study has important caveats. First, we could not directly compare the quality of DDESS and LEAs on several quantitative performance indicators, such as academic performance, graduation rate, attendance rate, and student–teacher ratio. This is because of the different assessments each system uses, as well as the different approaches each takes to calculating school-performance measures. Second, we used the percentage-proficient metric to examine LEA academic performance. We used this instead of value-added modeling because scale-score data were not available. This limited our ability to judge the level of quality of LEAs adjacent to the installations. Third, we could not compare the views of DDESS stakeholders with those of LEA stakeholders on the quality of their academic and nonacademic programs and services. This was because we could not interview LEA district and school stakeholders (other than superintendents, whom we did interview) for logistical reasons related to Office of Management and Budget clearance and the lack of contact information on military parents who send their children to LEA schools. Third, although we analyzed a great deal of financial data, the data represent only past and current experiences, and our projections of future conditions necessarily entail uncertainty.

Feasibility of Options

Table S.1 lists all the installations in the study by state and shows the results of our analysis regarding the feasibility of each of the six options at each installation. We assigned the following feasibility ratings to the options:

1. **feasible.** DoD can implement the option without significant barriers or requirements.
2. **conditionally feasible.** DoD can implement the option only if certain conditions, such as state cooperation, are met.
3. **infeasible.** DoD cannot implement the option under present law or policy.

Table S.1
Feasibility of Options, by Installation

State	Installation	Option 1 *Status Quo*	Option 2 *Transfer to LEAs*	Option 3 *Contract with LEAs*	Option 4 *Coterminous Districts*	Option 5 *Individual Charter Schools*	Option 6 *Contract with EMOs*
Ala.	Maxwell AFB	●	●	●	◒	○	◒
	Fort Rucker	●	●	●	◒	○	◒
Del.	Dover AFB	●	◒	●	◒	◒	◒
Ga.	Fort Benning	●	●	●	○	◒	◒
	Fort Stewart	●	●	●	○	◒	◒
Ky.	Fort Knox	●	◒	●	◒	○	◒
Ky. and Tenn.	Fort Campbell	●	◒	●	○	○	◒
Mass.	Hanscom AFB	●	◒	●	◒	◒	◒
N.C.	Fort Bragg	●	●	●	◒	◒	◒
	Camp Lejeune	●	●	●	◒	◒	◒
N.Y.	West Point	●	●	●	◒	◒	◒
S.C.	MCAS Beaufort	●	●	●	◒	◒	◒
	Fort Jackson	●	●	●	◒	◒	◒
Va.	MCB Quantico	●	●	●	◒	○	◒
	NSWC Dahlgren	●	●	●	◒	○	◒

NOTE: ● = feasible. ◒ = conditionally feasible. ○ = not feasible. AFB = Air Force base. MCAS = Marine Corps air station. MCB = Marine Corps base. NSWC = Naval Surface Warfare Center.

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Option 1: Status Quo

Preserving the status quo is a feasible option at every installation.

Option 2: Transfer to Local Educational Agencies

The transfer to LEAs is feasible at most installations. At the installations in Massachusetts, Delaware, and Kentucky, there might be barriers to transfer given state law in Delaware and the lack of precedents in the other states for the education of base residents. Special arrangement contracts have served Hanscom and Dover AFBs for more than 50 years, and Kentucky has no other military installations. We therefore consider the transfer option to be conditionally feasible for Hanscom and Dover AFBs and Fort Knox and Fort Campbell.

LEAs would need considerable planning time—at least 12 months and possibly longer—to prepare for the transition. Given sufficient resources and use of DDESS facilities, LEAs would have the capacity to assume responsibility for these military-connected students.

Option 3: Contract with Local Educational Agencies

The option to contract with LEAs is feasible at every installation. The special arrangements at Hanscom and Dover AFBs have been operating for more than 50 years. Like with the transfer option, LEAs would need significant transition planning time and resources.

Option 4: Coterminous Districts

We characterize the coterminous district option to be conditionally feasible for all but three installations. The Georgia constitution prohibits the creation of new districts at Fort Benning and Fort Stewart, and we think that the barriers to an agreement between Tennessee and Kentucky preclude establishing a single district at Fort Campbell. Establishing a coterminous district at the other installations would require state cooperation and possibly legislation. This option would require a longer transition period than the other options because an entirely new district infrastructure would have to be established.

Option 5: Individual Charter Schools

The feasibility of establishing individual charter schools on installations varies by state. Eight public charter schools currently operate on military installations in CONUS, although none is in a state that this study covered. Because of state law or policy, charter schools are not a feasible option at Maxwell AFB, Fort Rucker, Fort Knox, Fort Campbell, MCB Quantico, and NSWC Dahlgren. At the other installations, we consider this option conditionally feasible. The state or LEA must authorize each charter school, and some states limit the total number of charter schools that may be authorized. A local board of directors, which typically includes parents and other community stakeholders, would manage each individual charter school. Therefore, each installation would need stakeholders who are motivated and willing to take on that responsibility—a possible challenge, given the transient nature of the military population.

Option 6: Contract with an Education Management Organization

The option of contracting with an EMO or CMO is conditionally feasible at each installation. Four of the existing public charter schools on military installations are operated by an EMO or CMO. However, it might be difficult to implement this option in other locations; we found that states might prohibit EMOs and CMOs from operating or be reluctant to operate contracted schools that are not public charter schools. They also might find it difficult to operate

schools in geographically isolated areas. No one network might have the capacity to assume responsibility for all DDESS, so this option might be best suited to larger installations.

Summary of Feasibility

Preserving the status quo (DDESS or special arrangements) is feasible at every installation. Contracting with an LEA also appears to be feasible at every installation. Transfer to an LEA is apparently feasible at most installations, with some potential obstacles at two installations (Hanscom and Dover AFBs) historically served by special arrangements and the installations in Kentucky, which lacks a precedent for educating on-base students.

The other options have significant limitations or concerns about either legality or implementation. Setting up coterminous districts would require state cooperation, which might be difficult to obtain, and impossible in Georgia. States covering six of the 15 installations actually or effectively prohibit charter schools. Finally, contracting with EMOs might be feasible, but there are significant questions about EMO and CMO capability and willingness to undertake school operation in all of the locations.

Evaluation of Quality

Given quantitative data limitations, we also compared the quality of the alternatives indirectly with each other. This comparison provided information on how DDESS students might perform under various alternatives.

We find that DDESS perform above the national median on nationally normed standardized tests and that DoDEA as a whole sits at a high position in the nationwide distribution of achievement shown by the National Assessment of Educational Progress (NAEP). Aside from Massachusetts and Virginia, states hosting the DDESS installations rank low on the nationwide NAEP distribution. Most of the specific LEAs to which DDESS students would be transferred rank in the lowest two quartiles of their states. The low performance of adjacent LEAs stems in part from characteristics of the students and neighborhoods that they serve (e.g., prior academic experience or poverty level), but this does raise some concerns regarding their levels of quality. Because we did not conduct value-added analysis, we cannot definitely associate below-average LEA rankings with below-average school quality. Because of their family resources and prior academic experience, DDESS students, if transferred, might perform better than their peers in the adjacent LEAs. But their academic performance might be lower in the LEAs than it would be if they were to continue in DDESS.

Data on quality of the coterminous district and charter school options are very limited. The study states contain no coterminous districts to use for comparison. To assess the quality of the charter school option, we used studies examining the academic performance of charter schools in five of the study states. If the appropriate funding, school inputs, and processes are in place, DDESS students might perform well under the charter school options. The coterminous district and contracted options (that is, contracting with LEAs, EMOs, or CMOs) have the advantage of maintaining the cohesiveness of the school community because they would serve only military-connected children, so it would be easier to design programs and supports that meet their needs. This could have educational advantages.

In terms of academic programs, programmatic emphasis at DDESS seems to be similar to those of LEAs (e.g., on science, technology, engineering, and mathematics, or STEM),

although we did not assess the quality of these programs in either system. DDESS stakeholders raised concerns about the availability of adequate on-site college-preparation and Advanced Placement (AP) classes instead of online classes.

DDESS stakeholders reported that the support services are designed to address the unique needs of their students. Many DDESS students have emotional and psychological needs because of their transiency and their parents' deployment. Such needs differ from those of their peers in public schools. According to those interviewed, DDESS pool their resources with those of the installation to provide the needed counseling to students and their families. They also indicated that DDESS and installation commands work together to ensure that their special-education student population, which is much larger than the population in adjacent LEAs, receives the needed assessments and interventions. DDESS stakeholders viewed the identification and referral processes to be similar to those of the LEAs but said that the DDESS processes tend to be swifter to catch students before they move again to another school. It is not clear whether the adjacent LEAs are equally attentive to the needs of military-connected students or have the resources to provide the needed support for special education because the study did not collect such information from the LEA stakeholders.

Evaluation of Cost and Finance

Federal Impact Aid programs assist LEAs that educate federally connected students, such as military-connected students, because these LEAs cannot tax federal property to fund education. These programs have an important effect on education finance for LEAs around military installations. Using data from the U.S. Department of Education, we simulated the distribution of federal Impact Aid, as well as state and local sources of finance, under each of the options. Table S.2 shows the annual operating cost estimates for the six options. For purposes of comparison, we base the costs shown on implementation at all sites, even though some of the options might be infeasible at certain installations.

DoDEA conducts regular activities to sustain and enhance the quality of its facilities. These activities are called Facilities Sustainment, Restoration and Modernization (FSRM). We include these FSRM costs in our estimates for options in which DoD retains ownership of school facilities. For options in which LEAs take ownership of the schools, we assume that such costs are represented in the LEA's current average per-pupil expenditures used to develop our cost estimates.

Table S.2 provides information on the total projected annual operating costs and the portions that are funded by federal Impact Aid, other federal sources (including direct government operation, contracts, and federal assistance programs), states, and localities. For options 3 and 6, we present ranges of costs, given the uncertainty about how much contracting might cost.

We base these estimates on some key assumptions. Specifically, we assume that families continue to choose on-base housing rather than moving off base, even if schooling provision changes. We also assume that Congress adds funding to federal Impact Aid to provide new funding for the affected LEAs and maintains Impact Aid over time. If these assumptions are not met, localities could experience additional costs beyond our estimates (and other LEAs around the country could also experience reductions in Impact Aid). Finally, we account for reductions in military personnel stationed at Fort Knox, but we do not adjust for any future force realignments, which are presently unknown.

Table S.2
Summary of Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars

Revenue Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	204.8	0.0	231.7	204.8	0.0
Federal, DoD	427.1	0.0	302–348	5.0	0.0	302–353
Federal, other	0.0	25.7	0.0	23.8	25.7	0.0
State	0.0	115.6	0.0	107.2	115.6	0.0
Local	0.0	30.1	0.0	0.0	30.1	0.0
Total	427.1	376.2	302–348	367.7	376.2	302–353

In addition to the ongoing operating costs, there would be one-time transition costs of implementing any option other than preserving the status quo. Federal Impact Aid and some state funding do not become available to LEAs until at least one year after the LEAs receive new students, so we calculate an amount of temporary assistance that would have to come from special federal or state allocations and show that as temporary assistance in Table S.3. Table S.3 also summarizes the one-time costs for employee severance, facility transitions, and school start-up (including purchases and professional development). We assume that DoDEA will continue its present $788 million plan for upgrading or replacing DDESS facilities regardless of whether the facilities continue under DoD ownership or are transferred to LEAs. Because this cost is assumed constant across options, we do not show it in the table.

Decisionmaking and Implementation Planning

Although there are six options for educating military-connected children at the 15 installations, the options form two groups: options in which DoD retains responsibility and options in which DoD transfers that responsibility to states and localities. We therefore recommend

Table S.3
Summary of One-Time Costs, in Millions of Fiscal Year 2013 Dollars

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Employee severance	0	45	45	45	45	45
Facilities	0	1	1	1	1	1
School start-up	0	26	26	26	26	26
Temporary assistance	0	146	0	107	146	0
Total	0	218	72	179	218	72

NOTE: In this table, we exclude costs of processing separations.

thinking about the options in terms of this essential decision. We find no significant barriers to the transfer of responsibility except in Massachusetts and Delaware, where long-standing precedent exists for DoD responsibility, and perhaps Kentucky, where the state does not have other military installations to set a precedent for educating military-connected children.

The decision tree in Figure S.1 diagrams the options available for each installation, following each of the two paths.

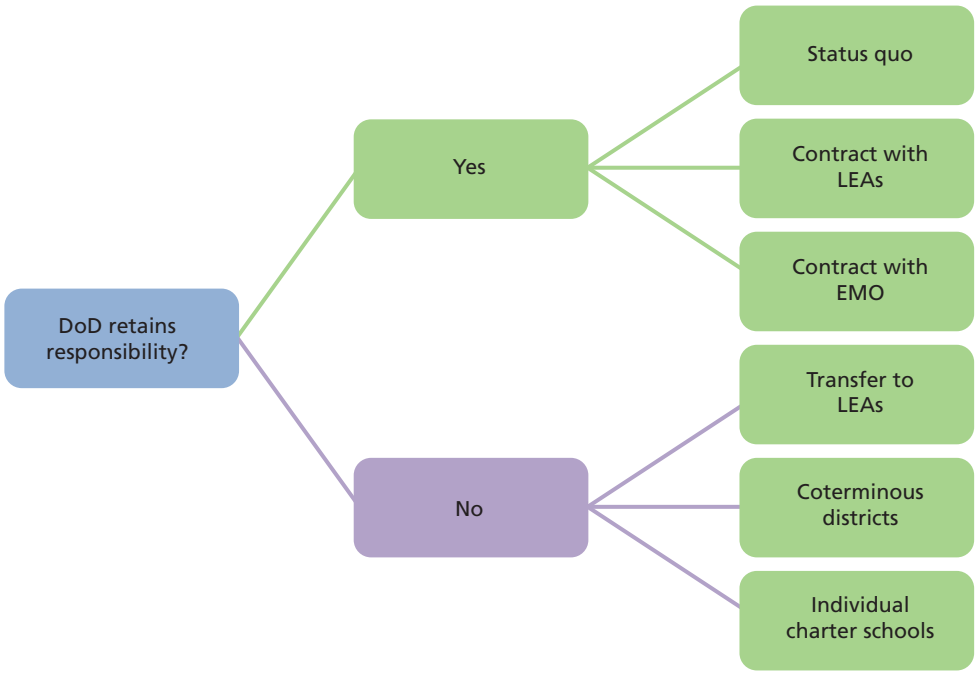
Planning If the U.S. Department of Defense Retains Responsibility

DoD could retain the responsibility for education and carry out that responsibility in one of three ways: status quo, contract with LEAs, or contract with one or more EMOs. Besides preserving the status quo, contracting is a feasible option, although we found some questions about how many EMOs might be capable of and interested in operating the schools. Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Planning If the U.S. Department of Defense Transfers Responsibility

If DoD desires to transfer responsibility for educating military-connected children, it has three possible options: (1) transfer schools to LEAs, (2) establish coterminous districts, or (3) establish individual charter schools. As noted above, Massachusetts, Delaware, and Kentucky might object to transfer, but transfer to LEAs is feasible at all other installations. The other two options are conditionally feasible and only at a subset of installations. If DoD chooses the path of transferring responsibility, we recommend beginning discussions with states and LEAs with jurisdiction over the installation areas. These discussions should explore all of the potentially

Figure S.1
Schooling Options: Decision Tree



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feasible options at each installation: transfer to LEAs, new coterminous districts, or new individual charter schools. We think that exploring all feasible options with each state and LEA is most sensible, rather than selecting a DoD-preferred option in advance.

Conclusion

In this report, we examine options for the education of on-base military-connected children at 15 installations where DoD currently takes responsibility for education. Maintaining the status quo (DDESS or special arrangements) is feasible at every installation. Contracting with an LEA also appears to be feasible at every installation. Transfer to an LEA is apparently feasible at most installations, with some potential obstacles at two installations historically served by special arrangements (Hanscom and Dover AFBs) and the installations in Kentucky, which lack a precedent for educating on-base students.

The other options have significant limitations or concerns about either legality or implementation. Operating coterminous districts would require state cooperation, which might be difficult to obtain, and impossible in Georgia. States covering six of the 15 installations actually or effectively prohibit charter schools. Finally, contracting with EMOs might be feasible, but there are significant questions about the capability and willingness of EMOs (or CMOs) to undertake school operation in all of the locations.

The likely federal costs for educating these military-connected children would be eventually lower under any of the options, and DoD costs could be reduced substantially. But the adjacent LEAs tend to be low-performing. Although military-connected students have favorable characteristics that might help them perform better than the average student in these LEAs, there is a concern that current DDESS students would experience lower quality if the adjacent LEAs provide their education either under contract or by transfer of responsibility.

Some of the alternatives also entail shifting significant costs from federal agencies to states and localities. Transferring responsibility to states and LEAs for education of on-base students would require states and some localities to provide significant funding because of the reduced federal funding for educating these students. These large potential cost shifts highlight the importance of DoD, the Department of Education, states, and LEAs working closely together to plan any transition.

In Appendix E, we offer more-detailed summaries that analyze the options, risks, and mitigations for each of the 15 installations.

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Abbreviations

AFB	Air Force base
AP	Advanced Placement
BSP	Basic Support Payment
CER	Center for Education Reform
CMO	charter management organization
CONUS	contiguous United States
DDESS	Domestic Dependent Elementary and Secondary Schools
DoD	U.S. Department of Defense
DoDDS	Department of Defense Dependents Schools
DoDEA	Department of Defense Education Activity
EMO	education management organization
FSRM	Facilities Sustainment, Restoration and Modernization
FY	fiscal year
GAO	U.S. Government Accountability Office
HQ	headquarters
IDEA	Individuals with Disabilities Education Act
LCR	local contribution rate
LEA	local educational agency
LOT	Learning Opportunity Threshold
MCAS	Marine Corps air station
MCB	Marine Corps base
MILCON	military construction
NAEP	National Assessment of Educational Progress

NCES	National Center for Education Statistics
NSWC	Naval Surface Warfare Center
OCONUS	outside the contiguous United States
PCS	permanent change of station
PPE	average per-pupil expenditure
SD	standard deviation
SES	socioeconomic status
STEM	science, technology, engineering, and mathematics
SY	school year
UMass	University of Massachusetts

CHAPTER ONE

Introduction

Background

Most military-connected children in the contiguous United States (CONUS) attend public schools operated by local educational agencies (LEAs). Federal Impact Aid programs provide some financial support to LEAs that educate federally connected students,[1] such as military-connected children, because these LEAs cannot tax federal property to fund education. But, on 15 CONUS installations, military-connected children who reside on the installations are educated under U.S. Department of Defense (DoD) responsibility.

Title 10, Section 2164, of the U.S. Code authorizes DoD to operate schools on military installations in the United States (including territories, possessions, and commonwealths). Section 2164 currently states that the Secretary of Defense may open a new DoD-operated school only upon "a determination that appropriate educational programs are not available through a local educational agency for dependents . . . residing on a military installation in the United States."

DoD also operates DoD Dependents Schools (DoDDS) overseas, which were first established after World War II. Although DoDDS has long been a unified school system, the domestic schools operated separately. In 1992, the DoD Education Activity (DoDEA) was formed to combine the domestic and foreign schools under a single governance structure with common curriculum and standards. The U.S. schools were established decades ago at individual installations by decisions of the installations and services upon a determination that local public schools could not provide suitable education services. In the 1960s and early 1970s, most DoD-operated schools on CONUS military installations were transferred to LEAs, but essentially no transfers have occurred since 1973 (Bodilly, Wise, and Purnell, 1988).

In 1994, shortly after DoDEA was established, the U.S. schools were renamed Domestic Dependent Elementary and Secondary Schools (DDESS). Unlike DoDDS schools, which can serve both on- and off-base residents, DDESS are authorized to enroll exclusively military-connected children who reside on federal property. Many of the present DDESS were established in the Southeast when the military services racially integrated shortly after World War II. The services did not want the children of service members to be educated in segregated public schools, so they established their own schools on the installations (Bodilly, Wise, and Purnell, 1988; U.S. Government Accountability Office [GAO], 2005).

[1] A federally connected student is any student who (1) has a parent in the U.S. military; (2) lives on Native American lands; (3) lives on federal property; and either (4a) has a parent who works on a federal property or (4b) resides in low-income housing.

Today, 13 installations have DDESS. Instead of developing and operating schools, DoD can also establish contractual arrangements to provide education. Today, these contracts, known as special arrangements, serve two additional installations. These arrangements were established because the states that contain those installations declined to accept responsibility for the education of military-connected children residing on federal land. One of the DDESS installations, West Point, also has a special arrangement that DoD entered voluntarily to provide for the education of on-base high school students. There are thus a total of 15 installations where DoD takes responsibility for the education of military-connected children, either through DDESS or special arrangements.

Since Section 2164 became law, no new installations have been designated as requiring DDESS. Furthermore, although Section 2164 sets criteria to designate new installations as requiring DDESS, the law does not require these criteria to be applied to justify the continued operation of the existing schools.

Goals of This Study

In this context, DoD directed the Deputy Under Secretary of Defense for Personnel and Readiness to conduct a study to evaluate the mission of educating military-connected children in CONUS. Specifically, it said,

> The study should consider the need for DoD to own and operate schools in the United States and to evaluate other options (e.g., charter schools). To the extent data are available, the study should include a comparative analysis of the quality of education provided to military dependents by DoDEA's U.S. schools and local education authorities. The study should analyze all potential options for existing DoDEA school allocations including a determination of which facilities may be a candidate for divestiture or transfer to an equivalent alternative arrangement. The study should evaluate domestic DoDEA facilities and prioritize pending and future construction projects on a need basis, including the possibility that some projects may not be needed if a school is a candidate for divesture.

In response to this directive, DoDEA asked the RAND National Defense Research Institute to research and evaluate the options for educating military-connected children on the 15 CONUS installations that DoDEA currently serves.

In conducting this study, we drew on the analysis of earlier studies on DDESS (e.g., GAO, 2005; Bodilly, Wise, and Purnell, 1988; Helmick and Hudson, 1997; University of Massachusetts [UMass] Donahue Institute, 2003). Our objectives were to do the following:

- Identify the set of feasible options for educating military-connected children at the 15 CONUS installations, and determine which options are feasible at each installation.
- Evaluate these options in terms of expected school quality, costs, and implementation considerations.
- Specify the construction and implementation implications for each feasible option.

As explained in more detail later, we used a combination of qualitative and quantitative methods to address the three objectives. The objectives of this study included only identifying the

feasible options and the implications of those options, not making recommendations of particular options.

Organization of This Report

This report continues with Chapter Two, which discusses the options considered in prior studies and presents a set of options that might be feasible and worth further analysis. It also discusses background on the current special arrangements and the potential LEAs that could receive students. Chapter Three explains our methods and data sources for assessing options, including the business case analysis approach. Chapter Four reviews the implementation considerations for each option and assesses the feasibility of each option at each installation. Chapter Five assesses the expected quality of education under each option. Chapter Six assesses the total cost of each option, as well as the likely distribution of those costs among federal, state, and local funders. Chapter Seven outlines implementation planning, including major risks and potential mitigations for each option, and concludes the report. Five appendixes provide additional detail on the analyses conducted:

- Appendix A summarizes research on quality indicators.
- Appendix B provides details on student achievement in the DDESS and LEA schools.
- Appendix C details our findings from stakeholder interviews and focus groups.
- Appendix D gives more information about the financial analysis.
- Appendix E delineates feasibility, risks, and mitigation for each option, by installation.

CHAPTER TWO

Background and Options for Contiguous U.S. Domestic Dependent Elementary and Secondary Schools and Special Arrangement Schools

Chapter One provided a brief overview of DDESS, which serves 13 installations. In this chapter, we examine the special arrangements more closely, review previous studies of DDESS options, and develop the options considered in this study. The chapter concludes with an overview of the LEAs that would educate students under a transfer option.

Special Arrangements

In addition to operating DDESS, at some installations, DoD contracts with LEAs to operate on-base schools. Two states, Delaware and Massachusetts, have maintained historically that they are not obliged to provide schooling to military-connected children who reside on federal property. DoD has therefore contracted with LEAs to operate schools on Dover Air Force Base (AFB) in Delaware and Hanscom AFB in Massachusetts for more than 50 years.

Delaware law (Title 14, Chapter 15, Section 1506) prohibits tax revenues to be used to fund the public education of pupils living in the state on real property that is exempt from taxes levied on real property. Although there are exemptions for untaxed property used for charitable, educational, or religious purposes, there is no exemption for military installations. As a result, since 1957, DoD has contracted with Caesar Rodney School District to provide education to K–12 students who reside on Dover AFB. The elementary and middle schools are located on the base, owned by DoD, and operated by the school district. High school students are funded on a per-pupil basis at the Caesar Rodney High School. The contract also includes transportation for the high school students.

In 1960, Massachusetts Attorney General Edward J. McCormack, Jr., determined that the state was not under legal obligation to provide educational services for military-connected children residing on federal property. Since that time, DoD has contracted with Lincoln Public Schools to operate one elementary and one middle school on base for grades pre-K–8. DoD owns these schools, and the school district operates them. Bedford Public Schools, which has a high school near the base, received a federal grant toward its high school construction and agreed to educate military-connected students who reside on base without charge if DoD covers the cost of transporting the students to the school. Since 1960, DoD has contracted with Bedford Public Schools for these transportation services.

Special arrangements also serve a third installation. In 1985, DoD entered into a contract with the Highland Falls–Fort Montgomery Central School District to provide transportation and education for on-base high school students residing on the West Point Military Reservation. Highland Falls–Fort Montgomery Central School District educates these students off base at its high school. Because the untaxed property of West Point occupies most of the land

area of the Highland Falls–Fort Montgomery Central School District, the Secretary of Defense determined that it was infeasible for Highland Falls–Fort Montgomery Central School District to provide this education without financial support, so the contract was initiated. At the time, constructing a DDESS high school was considered, but, given that fewer than 200 high school–age students lived on base, decisionmakers viewed the special arrangement as more economical than construction and operation of a small high school.

LEAs receiving special arrangement funding for the education of military-connected students cannot claim federal Impact Aid funds for these students, although they can claim Impact Aid for other military-connected students, such as those who live off base. At the DDESS locations without middle schools or high schools, students attend local schools at these levels without a special funding contract, and those schools can claim Impact Aid for these students. We discuss federal Impact Aid more thoroughly in Chapter Six and Appendix D.

Current Situation

Overall in CONUS, 4 percent of military-connected school-age children attend DDESS and special arrangement schools. In fiscal year (FY) 2014 (FY14), 24,441 students attended schools at 13 DDESS installations, and 1,470 students attended schools in three special arrangement installations, for a total of 25,911 DDESS and special arrangement students. As noted earlier, West Point has both DDESS and special arrangement schools, so there are 15 total installations. Table 2.1 summarizes the characteristics of these installations and schools. It provides information on the total number of military-connected children (irrespective of whether or not they attend DDESS or special arrangement or other schools outside the installation), levels (elementary, middle, and high) for DDESS and special arrangement contracts, number of DDESS and special arrangement students at each installation, and DDESS and special arrangement students as a percentage of all military-connected children.

Most of these installations serve only DDESS students. West Point serves 735 DDESS students and 180 special arrangement students, while Dover and Hanscom AFBs serve only special arrangement students. As seen in Table 2.1, the majority of military-connected children are educated in schools outside the installation. The percentages of military-connected children who are educated in DDESS or special arrangement schools versus public schools vary. West Point and Fort Knox have the highest percentages of military-connected children educated in the installation schools, while Fort Stewart and Maxwell AFB have the lowest.

DDESS also operate in Puerto Rico and Guam, but these locations and the overseas DoDDS locations were not part of our study.

Previous Studies and Options Considered

Four previous studies have examined the possibility of transferring DDESS to LEAs or other arrangements. None of these studies resulted in any policy decisions to transfer responsibility for the education of students. The few changes that have occurred since 1973 are closures of schools when bases closed and, in the case of Robins AFB in Georgia, the transfer of housing land to a private developer, making the base ineligible to host DDESS, which must be located on federal land.

Table 2.1
Domestic Dependent Elementary and Secondary Schools and Special Arrangement School Characteristics, by Installation

State	Installation	Number of Military-Connected Children	Number of Schools	Elementary	Middle	High	DDESS and Special Arrangement Students	Percentage of Military-Connected Children in DDESS or Special Arrangement Schools
Ala.	Maxwell AFB	2,225	1	DDESS	DDESS		346	15.6
Ala.	Fort Rucker	2,762	2	DDESS			715	25.9
Ga.	Fort Benning	10,856	7	DDESS	DDESS		2,754	25.4
Ga.	Fort Stewart	13,625	3	DDESS			2,071	15.2
Ky.	Fort Knox	4,691	8	DDESS	DDESS	DDESS	2,102	44.8
Ky. and Tenn.	Fort Campbell	18,083	9	DDESS	DDESS	DDESS	4,705	26.0
N.C.	Fort Bragg	27,956	11	DDESS	DDESS		5,085	18.2
N.C.	Camp Lejeune	12,146	7	DDESS	DDESS	DDESS	3,281	27.0
S.C.	MCAS Beaufort	2,465	3	DDESS	DDESS		896	36.3
S.C.	Fort Jackson	4,125	2	DDESS			675	16.4
Va.	MCB Quantico	4,474	4	DDESS	DDESS	DDESS	987	22.1
Va.	NSWC Dahlgren	479	1	DDESS	DDESS		89	18.6
N.Y.	West Point	1,273	3	DDESS	DDESS	Special arrangement	915	71.9
Del.	Dover AFB	1,587	2	Special arrangement	Special arrangement		550	34.7
Mass.	Hanscom AFB	466	3	Special arrangement	Special arrangement	Special arrangement	740	Unclear
	Total	107,213	64				25,911	24.2

SOURCE: Defense Manpower Data Center and DoDEA data.

NOTE: MCAS = Marine Corps air station. MCB = Marine Corps base. NSWC = Naval Surface Warfare Center. Defense Manpower Data Center data for Hanscom AFB are unclear.

All of the previous studies of DDESS transfer examined a similar set of options (e.g., Bodilly, Wise, and Purnell, 1988; GAO, 2005; Helmick and Hudson, 1997; UMass Donahue Institute, 2003). Because the options considered were so similar, we reviewed the most recent comprehensive study from the UMass Donahue Institute, 2003, which addressed the costs, benefits, and overall feasibility of transferring DDESS students, facilities, and school operations to LEAs. This study also developed and analyzed alternatives to the option of transferring control to LEAs. The analyses sought to ensure "basic equity and fairness for all students, families and communities while providing an end product that was sufficiently manageable" (UMass Donahue Institute, 2003, p. 1) to implement. The 2003 study proposed five options to pursue as a means of continuing to provide for educating military-connected children on base:

1. **status quo:** DDESS continue to operate as they have.
2. **transfer with facilities:** The installation's military-connected students and DDESS facilities would be transferred to LEA responsibility. Under this scenario, the local district could assign students to continue their schooling on base.
3. **transfer without facilities:** The installations' military-connected students would be transferred to the LEA, which would assume all educational responsibilities, but DDESS facilities would not be transferred to the LEA.
4. **contract with the LEA to provide educational services on the installation:** DoDEA would outsource installation school administration, curriculum management, and daily operations to the LEA.
5. **coterminous alternative:** The state would authorize a new LEA covering the same area as the installation (and only that area), which would operate schools on the installation and be funded through Impact Aid and state revenue sources.

We consider each of these five alternatives (combining transfers with and without facilities), and we add two major options, as we explain below. The data and analysis from this 2003 study were provided to an independent panel of education experts whom DoDEA recruited. These experts reviewed the data and made recommendations for a course of action at each installation. GAO, 2005, criticized this process because the output of the expert panel was "often unclear how various analytical factors examined led to recommendations being made" (p. 5). In particular, GAO raised concerns about being able to defend student transfers, avoid unnecessary costs, and mitigate possible legal challenges. It also said that a transfer study should account for the restationing of the military at each installation, which might have resulted in significant on-base population changes over the next few years.

The present study specifically addresses these critiques. Informed by previous literature, we identify dimensions of schooling that need to be taken into account for these analyses. We also identify implementation issues and barriers for each option, based on work of previous studies with updates to reflect current state and federal laws and policies.

Options Considered in This Study

We expand on previous analysis of alternatives to DDESS and other special arrangements by considering contracting with nonprofit charter management organizations (CMOs) and with for-profit education management organizations (EMOs) to run schools on installations.

CMOs are nonprofit entities that manage two or more charter schools (each). CMOs often provide office-support functions for charter schools to take advantage of economies of scale, but some also provide a wider range of services—including hiring, professional development, data analysis, public relations, and advocacy. EMOs are for-profit entities that manage charter schools and perform similar functions to those of CMOs. EMOs generally charge management fees for their services to charter schools.

We consolidated some very similar options from the previous studies to construct the six options that we consider for each of the 15 installations:

1. **status quo:** Continue to operate DDESS and special arrangement schools, similar to the status quo option considered earlier.
2. **transfer to LEA:** Transfer students and facilities (if the LEA desires to retain the facilities), combining the transfers with or without facilities considered earlier.
3. **contract with LEA:** Contract with an LEA to operate on-base schools, identical to the contracting option considered earlier.
4. **coterminous district:** Establish a new LEA under state law covering the full installation area, identical to the coterminous alternative considered earlier.
5. **individual charter schools:** Establish individual charter schools under state law, a new option we consider.
6. **contract with EMO:** Contract with an EMO or CMO to manage all or some set of the existing schools, a new option we consider.

Although families can choose private schools or home schooling for their children, we do not think that these options could serve the majority of current DDESS students at any installation, so we do not consider them as part of the analysis of options.

In three of these options—options 1, 3, and 6—DoD would remain responsible for on-base schools. In options 2, 4, and 5, DoD would transfer responsibility to another entity. We assume that, in the scenarios in which DoD maintains responsibility, it also retains ownership of school facilities and responsibility for all maintenance, facility modernization, and ultimate replacement. Under a transfer of ownership, the legal title to school buildings would pass to the LEA or individual charter school, which would become responsible for all maintenance, modernization, and eventual replacement. Legal title to school buildings is a requirement in some states, as we discuss in Chapter Four.

Local Educational Agencies That Could Educate Current Students

For alternative options regarding LEAs, such as options 2 and 3, we needed to identify which neighboring LEAs would receive the DDESS students. The general rule for choosing which LEA near each installation would receive the students was to follow the established boundaries of LEAs in the area. If one LEA's jurisdiction covered the housing area of the installation, we assigned that LEA. Some cases required assigning schools and students to multiple counties.[1]

[1] In the case of Fort Rucker, three potential districts could have jurisdiction over the installation: Daleville City School District, Enterprise City Schools, and Ozark City Schools. We chose Daleville City School District for analysis because its geographic area was closest to both schools on the installation. For Fort Jackson, we chose Richland County School District 2 over Richland County School District 1 based on discussions with local officials. Fort Benning was divided by school

Most of the special arrangements follow our general rule, but Hanscom AFB special arrangement students are currently divided by grade level, with high school students going to Bedford Public Schools and pre-K–8 students going to Lincoln Public Schools, an allocation we maintained in our analysis.

Table 2.2 summarizes the LEAs matched to each installation and provides information on their student characteristics. It reports the total current number of students served by each LEA, the current percentage of federally connected students, total number of DDESS or special arrangement students who would be transferred, and the resulting percentage of federally

Table 2.2
Current and Potential Additional Students, by Local Educational Agency

			Current Students (FY11)		Potential Additional Students (FY14)	
State	Installation	LEA	Number	Percentage Who Are Federally Connected	Number	Percentage Who Would Be Federally Connected
Ala.	Maxwell AFB	Montgomery Public Schools	31,750	8.5	346	9.5
Ala.	Fort Rucker	Daleville City School District	1,263	35.6	715	58.8
Ga.	Fort Benning	Chattahoochee County School District	876	31.3	2,308	81.1
Ga.		Muscogee County School District	32,610	19.4	446	20.4
Ga.	Fort Stewart	Liberty County School System	10,853	45.4	2,071	54.1
Ky.	Fort Knox	Hardin County Schools	14,000	17.7	2,102	28.4
Ky.	Fort Campbell	Christian County School District	9,311	13.0	1,966	28.1
Tenn.		Clarksville–Montgomery County Schools	29,162	36.1	2,739	41.6
N.C.	Fort Bragg	Cumberland County Schools	52,138	31.3	5,085	37.4
N.C.	Camp Lejeune	Onslow County Schools	24,007	43.3	3,281	50.1
N.Y.	West Point	Highland Falls–Fort Montgomery Central School District	803	Unknown	915	53.3

location in relation to county boundaries; for our analysis, we assigned DDESS to Chattahoochee County or Muscogee County School District based on which county covers the location of each school building. We used the border between Kentucky and Tennessee to assign Fort Campbell schools and students.

Table 2.2—Continued

			Current Students (FY11)		Potential Additional Students (FY14)	
State	Installation	LEA	Number	Percentage Who Are Federally Connected	Number	Percentage Who Would Be Federally Connected
S.C.	MCAS Beaufort	Beaufort County School District	19,691	3.4	896	7.6
S.C.	Fort Jackson	Richland County School District 2	24,310	15.3	675	17.6
Va.	MCB Quantico	Prince William County Public Schools	77,071	12.9	987	14.0
Va.	NSWC Dahlgren	King George County Schools	4,072	20.4	89	22.1
Del.	Dover AFB	Caesar Rodney School District	6,865	5.2	550	13.3
Mass.	Hanscom AFB	Lincoln Public Schools	1,253	Unknown	600	32.4
		Bedford Public Schools	805	23.5	140	40.9

connected students after the transfer. In all cases, the percentage of federally connected students increases after the transfer of DDESS students to nearby LEAs. These percentages provide a sense of how a possible transfer could affect the size and composition of these LEAs and are critical for estimating the distribution of federal Impact Aid to these LEAs, as discussed in Chapter Six. Families, however, might choose to live in other communities off base as a result of changes to DDESS, so the actual distribution of military-connected students could differ from these figures.

CHAPTER THREE

Approach, Data Sources, and Development of Indicators

Our work consisted of a one-year assessment of

- DoDEA's DDESS operation and special arrangements
- education options that most effectively balance cost and quality considerations for the nearly 23,000 students of military families attending DoDEA's 60 DDESS on 15 military installations and the nearly 1,400 students attending contracted schools at Dover AFB in Delaware; Hanscom AFB in Massachusetts; and secondary school students attending Highland Falls–Fort Montgomery Central School District schools adjacent to the West Point Military Reservation in New York.

Specifically, we considered two questions:

1. What options are feasible for educating military-connected children in each of the 15 CONUS installations?
2. What are the anticipated quality, cost, and implementation considerations for each option?

In this chapter, we discuss the general approach we took to assess options, as well as the data and methods we used in our analysis. We present specific procedures for analyzing school quality, costs, and finances in subsequent chapters with the results of these specific analyses. We also address limitations of our work.

Approach

We followed a business case analysis approach to guide this project. This approach allowed us to (1) assess the feasibility of each alternative for educating military-connected children on base by considering educational quality, costs, implementation requirements, and other relevant characteristics; (2) assess the extent to which each alternative fulfills the strategic objective of effectively and efficiently educating military-connected children; and (3) identify risks and mitigations and propose implementation plans. In this study, we established constraints that bound the analyses on quality and cost criteria and implementation requirements, identified assumptions that must be made for each alternative to be implemented successfully, and anticipated the risks attached if those assumptions are not met.

The study approach included six main tasks, described in the rest of this section.

Task 1: Identify Alternative Governance Arrangements for Schools and the Criteria for Evaluating Their Quality, Cost, and Implementation Requirements

We began by identifying six alternatives, as noted in Chapter Two, for providing elementary and secondary schooling on the 15 CONUS installations with DDESS or special arrangement schools. We also identified the appropriate dimensions to evaluate and proposed specific indicators within each dimension. As the study proceeded, we refined the indicators of school quality in light of the available sources of data. We also reviewed all available previous studies of DDESS to identify any additional considerations relevant to the present study.

Task 2: Compare Implementation Requirements Under Each Alternative and Assess Feasibility

We identified state laws, management capacity, legal issues, and similar characteristics that might vary by installation and would affect how easily an option might be implemented. Using this information, we assessed the feasibility of each option at each installation.

Task 3: Compare Expected Quality of Schools Under Each Alternative

Using the school quality indicators developed in task 1, we examined how each alternative would perform if implemented relying on the most-recent available data covering school year (SY) 2012–2013. When they were available for academic achievement, we conducted similar analysis using SY 2011–2012 and SY 2012–2013 data, which yielded similar findings. To compare DDESS quality indicators with those of alternatives, we relied primarily on secondary quantitative and descriptive data to examine student outcomes, teacher qualifications, school characteristics, and student composition in DDESS, contracted schools, and LEA schools near installations. We also collected qualitative information on DDESS to measure other indicators, such as programs and services provided to students, perceived quality, and parent satisfaction. Although we did not use this information to compare schools, it provided insights about DDESS processes and conditions for learning.

Evaluating options, such as CMO operation, required more-indirect inference because we did not have access to data on the performance of these options. We examined the literature on the quality and track record of CMO-managed schools. Similarly, it was not feasible to examine directly the quality of coterminous districts because data were not available and, even if they were, making any meaningful comparisons would have been difficult because coterminous districts were not established in any of the study states.

Task 4: Compare Expected Costs Under Each Alternative

We examined the costs for running schools under each alternative. In making comparisons, we examined the budget components in the DoDEA system. We examined the costs of LEA schools. We also analyzed how educational costs are shared among federal, state, and local entities, as well as how each alternative could affect this division. Central to this analysis is understanding how the Impact Aid program supports LEAs that educate military-connected children. We assessed how Impact Aid is allocated, what portion of the affected LEA costs it currently covers, and how the coverage would likely change if LEAs were to assume the responsibility for educating military-connected children in the 15 installations.

We also examined the CONUS DDESS and special arrangement military construction (MILCON) program plans (e.g., school facility construction and renovation) to compare expected facility capital costs for each option.

Task 5: Identify Implications of Each Alternative for Military Construction

We reviewed and analyzed existing data and reports on school facilities and their condition, as well as construction requirements. We also obtained data on the planned MILCON program for CONUS DDESS and special arrangement schools.

Task 6: Analyze Options Generally and at the Installation Level

We assessed each feasible option in terms of our quality and cost criteria both generally and by installation. For each feasible option, we used our implementation analysis to identify necessary legislative and regulatory changes and other activities required to implement each option. In our analysis, we delineated risks and mitigations for costs, quality, and implementation for each option and installation.

Data Sources

We used a mixed-method analysis and multiple data sources to examine the six alternatives for educating military-connected children in terms of quality, cost, and implementation. As noted, we relied on available secondary quantitative data to assess these options by quality and cost. We also reviewed state laws and stakeholder interviews to assess perceived quality of programs and services, as well as implementation and other, more qualitative issues (Table 3.1).

We describe each data source below.

Documents and Laws

To understand the legal issues of educating military-connected children, we first reviewed previous DDESS transfer studies, which provide an overview of relevant state laws, as well as the opinions of state lawmakers. We compiled information relevant to

- school financing
- jurisdiction
- financial burden
- governance (e.g., establishment of charter schools and coterminous districts)
- facilities
- employees
- transportation.

Table 3.1
Data Sources

Data Source	Details
Documents and laws	Previous studies; state and federal laws and policies
Financial and facility data	DDESS finance and construction plans; U.S. Department of Education Impact Aid Assessment of conditions of DDESS, special arrangement, and MILCON plans
DDESS and LEA statistics	School performance, teacher qualifications, and services
Stakeholder interviews and focus groups	DDESS superintendents, principals, teachers, counselors, parents, installation commanders, LEA superintendents, and charter operators

Where a state law or its implications were unclear in a study, we reviewed the language of the state code. We gathered additional data on state collective bargaining laws from Northern, Scull, and Zeehandelaar, 2012.

Financial and Facility Data

DoDEA supplied expenditure data for recent years covering DDESS, special arrangement, and headquarters (HQ) costs. We worked closely with DoDEA staff to identify ways to summarize these data into units relevant for our analyses. DoDEA also supplied current assessments of the conditions of DDESS and special arrangement facilities and the planned MILCON program to upgrade or replace some of these facilities.

The Department of Education shared a spreadsheet model and data from the federal Impact Aid programs, which we used to estimate the options' impact on federal, state, and local costs and funding. We also used more-recent financial data from states and LEAs where available.

In Chapter Six and Appendix D, we discuss in more detail the methods used to analyze financial data.

Domestic Dependent Elementary and Secondary Schools and Local Educational Agency Statistical Data

We worked closely with DoDEA to obtain longitudinal quantitative data, covering SYs 2010–2011 through 2012–2013, from DoDEA HQ, departments of education from each of the ten states in which the 15 installations with DDESS reside, and the National Center for Education Statistics (NCES). These school-level data included such characteristics as size, racial and ethnic composition, teacher–student ratio, percentage of students receiving free or reduced-price lunch, percentage of special-education students, attendance and graduation rates, and academic achievement. Data also included information on educational levels of teachers. DoDEA provided information on individual students and teachers, while state and NCES data were available by school.

Although we collected these data, not all were reported, either because some of the data were missing for certain states or because the data collected were not comparable to DoDEA or across states. For example, the states that included information on teacher–student ratios used different formulas and methodologies that made this information not reliable and difficult to compare with DDESS data.

Using data that appeared reliable and comparable, we conducted descriptive analyses of CONUS DDESS and district-contracted schools. We also ranked performance of public schools near the installations, as well as other public schools, in each of the ten states. The data we report cover SY 2012–2013 because it is the most recent. For academic achievement, we also conducted similar analysis on the previous two years of data.

Stakeholder Interviews and Focus Groups

We included a relatively large number of DDESS interviews and a smaller number of LEA interviews. Table 3.2 shows the total number of participants by stakeholder group. We interviewed all installation commanders and DDESS superintendents. For the 13 installations where DoD operates DDESS, we also interviewed DDESS principals and random samples of regular teachers and counselors, special-education teachers and counselors, and parents, including those involved in parent–teacher organizations or serving on school boards. DoDEA

Table 3.2
Number of Interviewees, by Stakeholder Group

Group		Locations	Participants
DDESS	Superintendents	13	6
	Principals	13	54
	Teachers and counselors	13	210
	Parents	13	84
Installation commanders		15	15
LEA superintendents		16	16
State officials		7	7
Charter operators		4	4
Total			396

NOTE: Six DDESS superintendents manage the 13 locations.

provided us with student, parent, and staff databases. We stratified the databases by installation, school, and grade level and then randomly selected the sample. We oversampled anticipating that some might not respond to our invitation or decline to participate. Our participation rate was high for superintendents (100 percent) and principals (90 percent) but lower for teachers and counselors (74 percent). We contacted about 1,000 parents for interviews; 143 accepted the invitation, and 84 actually participated in the interviews (8 percent). Although we recruited parents who did not serve on the school boards or as officers of parent–teacher organizations, it was largely board and organization officers who actually participated. For each school stakeholder group, we conducted one focus-group interview for small installations and two focus-group interviews for large installations. We did not interview school stakeholders for Hanscom and Dover AFBs, where DoD contracts with LEAs to provide education services.

We conducted DDESS interviews by videoconferencing. We interviewed installation commanders, superintendents, CMOs, and state officials by phone. Two RAND researchers participated in each interview.

We developed a set of protocols that was common across the sites but differed by interviewee group. For example, we had separate protocols for principals, superintendents, installation commanders, district and state officials, and CMO representatives. The DDESS interviews and focus group collected information on stakeholders' perceptions of their schools' strengths and needs for improvement, quality of academic programs and support services, availability of co-curricular activities, and teacher quality.

We requested interviews with superintendents of the 18 LEAs that would educate students under the transfer option (as listed in Table 2.2 in Chapter Two), and 16 agreed to participate. We also interviewed four EMO (and CMO) leaders. The LEA superintendent and EMO leader interviews asked what they would need to assume responsibility for educating DDESS students, as well as what resources and challenges they would face. We selected two for-profit EMOs and two nonprofit CMOs, each operating a total of ten schools or more within at least two states. Finally, we interviewed state education officials in seven states that had study installations to understand their perspectives on alternatives to the current arrangements, includ-

ing operation by local LEAs or new coterminous districts established on the bases, as well as financial considerations.

After completing the interviews and focus groups, we analyzed the data and tabulated results. Initially, each researcher separately summarized each interview or focus group on school quality criteria in the data collection protocol. (Areas addressed in the protocol included stakeholder judgment regarding the type and quality of academic programs, counseling supports, special-education supports and identification and referral processes, co-curricular activities, and parental engagement.) To reach a consensus, we then checked our coding to assess degree of agreement and discussed areas in which coding differed. Subsequently, we combined the summaries into a working database that allowed us to extract cross-interview findings on school quality and implementation considerations and other themes that emerged during data collection. We reviewed these findings, tabulated the distinct responses, and summarized the results. We then analyzed the data for cross-site patterns identifying quality and implementation issues within and across sites.

Study Limitations

The study has important caveats. First, we could not directly compare the quality of DDESS and LEAs on several quantitative indicators, including academic performance, graduation rate, attendance rate, and student–teacher ratio. This is because of the different assessments each system uses, as well as the different approaches each takes to calculating school-performance measures. For example, although LEAs follow a 9th-grade cohort for four years to estimate graduation rates, DDESS estimate them based on 12th-grade enrollment. Similarly, although the LEAs consider an excused absence as an absence when estimating attendance rates, DDESS do not. As a result, we present indirect or implicit comparisons on many of these measures.

Second, we used the percentage-proficient metric to examine LEA academic performance. We used this rather than value-added modeling because scale-score data were unavailable to researchers. This limited our ability to infer the level of school quality.

Third, as the study proceeded, we refined the indicators we examined and reported based on the quality of the data. For example, we did not report on class size or teacher–student ratio because states varied on how they calculated these and some states did not provide any guidance on how they were calculated. We also did not report on teacher certification or percentage of teachers who were novices.

Fourth, the interviews targeted DDESS stakeholders. For logistical reasons, including the need to obtain timely Office of Management and Budget clearance and lack of contact information for military parents who send their children to off-base schools, we did not interview LEA stakeholders, such as military parents who live off base and have children enrolled in LEA schools, LEA teachers and counselors, or district-level personnel (e.g., directors of curriculum and instruction or special-education programs). We did not design the LEA superintendent interviews to capture school quality but focused on examining feasibility and implementation of various options under consideration. Thus, we could not compare the views of DDESS stakeholders with those of LEA stakeholders on the quality of their academic and nonacademic programs and services.

Fifth, although we analyzed a great deal of financial data, the data represent only past and current experiences in DDESS, special arrangement, and LEA schools. We draw inferences from these past experiences about the possible future impacts of the options on cost and finance, but these inferences necessarily entail uncertainty. We also had to make some impor-

tant assumptions in projecting future finances. Therefore, it is important to treat the financial projections as indicative of the options' effects rather than precise forecasts.

Although the available data have limitations, they do point out issues on quality, costs, and implementation that are important to consider when making decisions regarding educating military-connected children. The discussion of risks and potential mitigations in Chapter Seven summarizes many of these points.

CHAPTER FOUR

Evaluation of Feasibility and Implementation Considerations

The six options we analyzed have varied feasibility and implementation issues. We review these in this chapter. After a very brief review of option 1, the status quo, we review in detail these issues for option 2, transferring DDESS to LEAs. We then note similarities and differences for each of the remaining options.

Specific issues we discuss are

- legal issues
- management capacity
- facilities
- installation security
- transition planning, including teacher workforce transition.

State laws influence whether certain options are feasible. We consider several *legal issues* that would be critical to the ultimate implementation of some alternatives, including whether states allow the establishment of new LEAs, what conditions they place on building ownership, and whether they authorize charter schools. We address these issues by updating the analysis in previous studies to include current state laws and policies.

Successful implementation of the LEA, CMO, or EMO school-management options will require that these entities have sufficient capacity to manage quality schools. We assess several indicators of *management capacity*, including financial resources and the ability to work with DoDEA and military-connected children.

To address the issue of *facilities*, we look at information on the conditions of DDESS facilities and existing plans for construction.

Installation security measures could affect the feasibility of the schooling alternatives. Security requirements have been managed successfully in other installations that house LEA schools or have nonfederal employees. Still, designing and implementing new security policies and procedures could take time. Options that entail nonfederal teachers and staff working on the installation will have to comply with force-protection policies. Transfers of schools to LEAs could also lead LEAs to want to use schools on the installation to serve both military-connected children and those from the community. We examine the implications of force-protection policies, which could restrict access for off-base children and, in extreme situations, even result in closure of installations to nonfederal personnel during times of elevated threat. We consulted installation commanders to determine whether security measures would pose a significant barrier to any alternative and how such barriers might be overcome.

Last, we address issues that could arise during the transition period leading to implementation of each schooling option, including the process of hiring and training teachers. We address how the transition could affect teachers and the time and resources required for a sound implementation.

Option 1: Status Quo

Option 1 is the status quo—that is, continued operation of DDESS and special arrangement. Our interviews and review of policies did not find any obstacles to continuing these arrangements, so we find option 1 to be feasible at all installations.

Option 2: Transfer to Local Educational Agencies

Legal Issues

There has never been a clear legal resolution on whether states must educate military-connected children who reside on federal property (Putka, 2010). No established federal law places responsibility on states for educating students who live on federal property. Still, many states have taken responsibility for educating all military-connected students, both on base and off base.

Some states have legislation explicitly allowing LEAs to charge tuition to students outside their jurisdictions.[1] Although LEAs are not required to accept federal Impact Aid, those LEAs that do accept it must educate, without charging tuition, all military-connected children who are covered by Impact Aid. Furthermore, states cannot reduce their per-pupil funding to LEAs that receive Impact Aid. These provisions, however, do not compel states or local jurisdictions to provide education to on-base students.

As the Putka, 2010, law review article articulates, there is precedent for establishing state responsibility for some rights under the U.S. Constitution's equal-protection clause (in Amendment 14) and supremacy clause (in Article 6), but federal appellate courts have not ruled whether education is considered one of the rights subject to these clauses. Two U.S. Supreme Court cases and one U.S. appeals court case offer precedents that are relevant to states' obligations for education of federal land residents. In *Plyler v. Doe*, 1982, the Supreme Court, citing the equal-protection clause, determined that states cannot deny education based on a child's immigration status or charge undocumented immigrants tuition. The equal-protection clause applies to federal land residents, so the court's rationale provides some support for a ruling obligating states to take responsibility. In *Evans v. Cornman*, 1970, the U.S. Supreme Court ruled that residents of federal land are considered residents of the state and thus must be given voting rights. The court specifically stated that the right to vote is a fundamental right, which must be honored, but it has never made a similar determination about the right to education, so it is unclear how the court might rule on it. Although there have been no cases about state obligations to educate on-base students, in *United States v. Onslow County Bd. of Education*, 1984,

[1] State laws in Delaware, Georgia, Kentucky, Massachusetts, New York, North Carolina, South Carolina, and Virginia explicitly allow LEAs to accept students from other jurisdictions while giving those LEAs the right to charge tuition for transfer students. (UMass Donahue Institute, 2003, provides this information for all the listed states except Delaware, which follows 14 Del. C. § 601.)

the Fourth Circuit Court of Appeals placed limitations on how states and localities could treat off-base military members. This court ruled that localities cannot charge tuition to off-base military-connected children (even if they forgo Impact Aid) because tuition constitutes a perceived tax on military families and thus violates the supremacy clause. The court did not address the issue of providing education to residents of federal land, and it is unclear whether this precedent would extend to those residents.

As noted in Chapter Two, Delaware has a state law and Massachusetts has an attorney general opinion stipulating they are not obligated to provide public education to military-connected children who live on base. Given that special arrangements have been funded for more than 50 years at Hanscom and Dover AFBs, these states might not be amenable to altering these arrangements. They might challenge a decision to transfer responsibility, particularly if the state or LEA has to bear large costs.

All but one of the remaining states in our study have military installations besides the ones with DDESS where they provide public education, establishing the precedent that they are responsible for the education of military-connected children who reside on federal land. For instance, New York provides education to students who live on Fort Drum, as does Virginia for several installations. Kentucky is the one state with DDESS that has no other military installations, so the responsibility for the education of military-connected children might be unclear.

Fort Campbell presents special challenges because the installation spans into both Kentucky and Tennessee. There are currently DDESS elementary schools in both states. Fort Campbell's middle school is in Kentucky, and its high school is in Tennessee. It might be infeasible to maintain a single school system on Fort Campbell if responsibility were to be transferred to the states. In a transfer of responsibility, each state would determine jurisdictions and could service students only within state boundaries. Further, LEAs might not choose to use on-base schools. It is likely that both states will be concerned about how a combined system would be financed and which educational standards would apply. Additionally, Kentucky has no existing model for providing education to on-base children. Although a transfer is feasible, it might not be possible to keep the students and schools together at Fort Campbell.

In our discussions, state officials expressed more concern about transferring responsibility than the LEAs did. We believe that we can attribute this to the fact that the states would be directly responsible for the financial implications. School funding is the responsibility of state and local authorities; LEAs are typically not responsible for directly raising revenue. Given the legal analysis described above, we think that transfer is legally feasible in most of the affected states. However, state cooperation would certainly make the process smoother, so it is desirable for DoD to work with the states to develop mutually agreeable plans.

Management Capacity and Facilities

None of the LEA representatives we interviewed had technical or managerial concerns about absorbing DDESS students and buildings, given adequate planning time. Superintendents of both small and large LEAs thought that their districts had the capacity to manage the increased number of schools and students who would come from DDESS. They would like to use existing DDESS buildings because many LEAs lack sufficient capacity off base for their current populations. Several LEA representatives also said that they would prefer to maintain the neighborhood schools on the base, even if they might have options for some students in their existing schools off base. Some LEA representatives did express concern about the inef-

ficiency in running small schools, especially some of the current middle and high schools, so these LEAs might choose to transport students to existing off-base schools rather than using DDESS middle and high schools.

Most LEAs would likely add some off-base students to the on-base schools, in some cases aiming to maintain a sense of community by including students who are already military-connected but live off base.

As discussed in Chapter Two, there are two options for use of DDESS facilities. Should DoD retain responsibility for DDESS, we assume that it also retains ownership of school buildings. Under these scenarios, in which DoD contracts with an LEA or EMO, we expect that those entities would accept responsibility for general maintenance of school facilities. DoD would remain responsible for new construction and Facilities Sustainment, Restoration and Modernization (FSRM) of existing facilities. If DoD decides to not retain responsibility for on-base schools, we assume that the ownership of school facilities would be transferred to the LEA or individual charter school accepting responsibility for those schools. This transfer of ownership would satisfy state requirements that LEAs hold fee-simple title[2] to buildings before operating them or paying for additional construction or maintenance. The conditions of a transfer would need to be negotiated on a state-by-state basis. Some states might be amenable to a long-term lease arrangement in lieu of a full transfer of ownership over buildings or land. We expect that DoD would not be amenable to ceding federal land to LEAs.

For LEAs to assume ownership of DDESS facilities or enter into long-term lease agreements, school buildings must first comply with state codes. States have square-footage and acreage requirements, fire and safety regulations, and Americans with Disabilities Act of 1990 (ADA) (Pub. L. 101-336) compliance mandates, among other regulations. We anticipate that most DDESS buildings already meet these health and safety requirements, but states would want to assess compliance. This would not be a significant barrier, especially at installations where school buildings have recently undergone renovations. However, some DDESS facilities might need to be updated, and that responsibility would likely fall on DoD. LEAs are concerned about being responsible for the costs of any necessary renovations but generally expressed no concerns about ongoing maintenance if they receive facilities in good condition.

The first phase of the UMass Donahue Institute, 2003, study assessed the physical conditions of each of the CONUS DDESS. DoDEA has continued to update this facility condition assessment using the Fitzgerald Construction company. Schools are categorized on a four-point scale on which Q1 represents the highest quality and Q4 represents the lowest. Schools rated Q3 and Q4 are deemed in need of complete renovation or replacement. In response to this analysis, DoDEA developed and began implementing a MILCON program to upgrade DDESS facilities. Of the 31 schools identified as Q3 or Q4, DoDEA started MILCON projects at ten prior to FY14 and has plans for MILCON projects at 19 more. DoDEA plans to renovate one school using facility sustainment funding rather than MILCON. Only Dahlgren School is not on the planned-construction list. This construction program (shown in Table D.12 in Appendix D) might make manageable a transfer of ownership to LEAs, but it would be desirable to consult with states and LEAs as part of the construction process to be sure all code requirements are addressed.

[2] *Fee-simple title* means complete legal ownership, distinguished from a lease or other right to use a building or property.

Installation Security

Installation commanders expressed few concerns about security. Some installations have schools within the operational perimeter; others separate schools and housing. Some commanders of installations where schools are located within the operational perimeter expressed concerns about the entry of additional civilians from off the installation but said that these concerns could be managed if necessary.

Currently, 157 public schools operate on military installations. The operation of these schools provides evidence that security concerns can be adequately addressed. All installations have policies in place governing base access, and those policies and procedures vary based on how open each installation is. Every person coming on base must comply with these policies and procedures. For routine access to closed installations, the visitor must have at least a basic background check showing no serious criminal convictions before being allowed to enter the installation. These access policies apply to teachers and other school staff, drivers, and parents of students. Some LEAs are already familiar with these policies and procedures and currently have arrangements that allow their school buses to transport students from the base to LEA schools.

The LEAs operating the special arrangements at Hanscom and Dover AFBs already manage these requirements, as do many LEAs that operate schools on other installations throughout the country.

Transition Planning

Thoughtful transition planning is essential to the success of an LEA transfer. All of the LEAs with whose representatives we spoke are open to hiring DDESS teachers. They view the DDESS teachers as a good pool of applicants and would encourage them to apply for positions. Still, teachers must hold state certifications and meet district hiring standards to teach in LEA schools. Some LEA representatives said that they would be willing to help DDESS teachers obtain the necessary state certifications, but obtaining these certifications could be a barrier for some current DDESS teachers.

Another issue that will affect transitions is the difference between the DDESS and LEA pay scales. Most LEA representatives said that they would grant the equivalent of all years of service to teachers for compensation purposes, but state law usually controls this. Some LEA representatives said that they would request a state waiver to exceed the maximum service credit in order to grant full credit. Still, even with full service credit, LEA pay scales are typically lower than the DDESS pay scale. DDESS teachers might not agree to work for the LEAs, especially if they would have to accept a reduction in pay or less desirable working conditions, such as larger class sizes or lack of union representation.[3] These labor market conditions vary across LEAs and might be more significant at some installations than others. Many teachers decided to work for DDESS because they have a passion for serving military-connected students or are military-connected in some way, and they might not feel that same loyalty to schools operated by an LEA. Some teachers have previous experience working in LEAs, or are

[3] Although we are unable to compare class-size and pay-scale data across DDESS and LEA schools, many stakeholders—parents, teachers, and principals—interviewed identified small class sizes as a desirable characteristic of DDESS and noted that, from their experience, DDESS classes tend to be smaller than those in LEA schools. Stakeholders also commented that, from their experience, DDESS provide higher salaries than LEA schools. (See Chapter Six.) As for union representation, collective bargaining for teachers is explicitly illegal in Georgia, North Carolina, South Carolina, and Virginia. It is mandated in Delaware, Massachusetts, and New York.

familiar with the adjacent LEAs, and describe the DDESS system as far superior. They might be unwilling to return to those LEAs. Should teachers decide not to seek employment in LEAs during a transition, LEAs might need additional time to recruit teachers.

States set academic content standards, and LEAs must adopt curricula to meet those standards. However, all DDESS adhere to one set of academic standards and curriculum. Given that LEAs must meet the requirements of their states, the curricula they use differ from what is used in DDESS. Therefore, existing DDESS teachers could need professional development to teach in LEA schools. Schools typically provide professional development to all teachers each school year, so this might not be particularly prohibitive. Furthermore, DoDEA and many states are moving to adopt the Common Core State Standards and associated curricula. This could minimize some of the transition issues related to teacher training in those states. There has been opposition to the Common Core State Standards in some states, which could eventually result in these states adopting new standards. Currently, six states where DDESS operate are transitioning to the Common Core State Standards. Virginia is the only state with DDESS that has not adopted the Common Core State Standards. North Carolina and South Carolina initially adopted the standards, but South Carolina has since withdrawn from these standards and North Carolina is considering rewriting its standards. LEAs would also have to orient DDESS teachers to their policies and procedures, which would also likely differ from those of DDESS.

If existing DDESS buildings will be used, most LEAs we interviewed would want at least 12 to 14 months to plan their operation. This estimate might not account for all the activities required for the transition, so more planning time might be required. If LEAs are not granted use of DDESS buildings, they might need substantially more time to build new facilities. During this transition period, LEAs would have to accomplish a range of tasks. They would need to hire teachers and other professional staff and provide significant professional development to integrate them. Should extra work be required of teachers, such as mandatory training over the summer, LEAs might need to provide them stipends.

In addition to training teachers in new curricula, LEAs would need to purchase related curriculum materials, technology, and equipment. They might be able to take advantage of the technology resources already available in most DDESS, such as electronic white boards and laptops. Finally, LEAs might need resources to develop programs to meet the needs of military-connected students. We discuss transition funding further in Chapter Six.

Option 3: Contract with Local Educational Agencies

DoDEA could contract with LEAs in similar fashion to current special arrangements, which have been maintained for more than 50 years. As with the transfer option, we do not anticipate that installation security issues would pose a significant barrier to school operations. A contract arrangement would avoid legal issues associated with a full LEA transfer, including the need for state cooperation.

Still, many issues associated with the option of a full transfer also pertain to a contract arrangement. We expect that LEAs would need sufficient planning time to prepare for a contract arrangement, though the transition might be less complicated than a full transfer. The availability and adequacy of facilities would also need to be assessed and addressed. Unlike a transfer arrangement, under a contract arrangement, DoDEA would likely retain ownership

over schools on base contracted to LEAs. It is unclear whether state codes would apply under this scenario. LEAs might seek to limit their responsibility for maintenance costs under the contract. DoD would have to fund any uncovered facility costs, as well as eventual capital improvements or replacements. Finally, the teacher transition issues would be similar to those under the full transfer option.

Option 4: Coterminous Districts

The establishment of coterminous districts would require state cooperation. States would have to allow the creation of coterminous districts on military installations. This option would not be feasible everywhere. Georgia's state constitution explicitly prohibits new LEAs, although there have been recent attempts to modify this provision. Lifting this restriction would require a constitutional amendment, which is more challenging to achieve than ordinary legislation because it requires significantly more votes. There is a current proposal for a constitutional amendment (HR 486) that received approval from the state's House Education Committee in February 2014 but, as of this writing, had not yet been brought for a vote on the house floor. Even if an amendment were to succeed, the language would be restrictive and would not explicitly permit a coterminous district on a military installation in the state.

Many states have reduced the number of districts in recent years. Although states are often reluctant to create new districts, our interviews suggest that, if state officials see significant advantages to new coterminous districts, it might be feasible to obtain approval for them. In Chapter Six, we discuss how each option might affect the level of Impact Aid a state receives. For a coterminous district, Impact Aid must make up the entire local contribution to school funding and state officials might see that as desirable. In states with county-based districts, a new district would generally have to be authorized in state legislation. In other states, the state board of education holds the authority to approve new districts. Should DoD choose to pursue this option, it will have to work with the appropriate decisionmaking authority to gain approval.

Coterminous districts would require their own administrative structure, with a superintendent and central office. States might find these additional structures inefficient, so they might prefer to use the existing LEA structures rather than create new ones.

The coterminous district option would require more transition time than the other alternatives because of the need to establish a new district infrastructure. Although existing DDESS facilities might be used, as they would with the other school alternatives, some installations might need to construct or acquire new district office facilities. This would require time and start-up funding. The hiring process would take much longer than it would under a transfer to or contract with an LEA. District staff, including a superintendent, would need to be hired before school staffing decisions could be made. Once the district staff is in place, they would need to develop human-resource policies and procedures before hiring school personnel. We expect that existing DDESS teachers would be welcome to apply, as they would under other options. However, the terms of their employment could differ from those under their DDESS contracts because a coterminous district would have to comply with state laws. Teachers might be unhappy with these changes, which we expect would be similar to arrangements under a transfer to an existing LEA. As a result, recruiting enough teachers or staff to the district could

be challenging. This risk might be mitigated if the new district adopts employment policies that are favorable to existing DDESS teachers, to the extent allowed by state law.

Other elements of the transition process would be similar to the LEA transfer option. Time and resources would be needed for professional development of teachers and curriculum resources. Schools would need to adopt state academic standards and standardized tests. As with the other options, the new district would need to work with the installation command to comply with base security regulations.

Option 5: Charter Schools

Option 5 involves charter schools, either run independently or by a management organization (EMO or CMO). States vary widely in their charter school policies. Some states allow or encourage them; others do not. Eight CONUS military installations currently have charter schools on the installation. They make up less than 5 percent of all public schools located on military installations.

As Table 4.1 indicates, Delaware, Georgia, North Carolina, South Carolina, and Tennessee allow an unlimited number of charter schools and do not impose caps on the number of students eligible to attend them (Center for Education Reform [CER], 2014). Although New York does have a cap on the number of charter schools, the maximum is quite large and not seen as a significant barrier. Massachusetts allows charter schools but restricts the number permitted within the state. Some permit multiple entities to authorize charter schools, which encourages a diverse range of charter schools to form. Others are more restrictive and vest authorizing power in a single entity, such as the local school board. CER gave these states ratings of B or C on a scale that assesses the degree to which state policies are favorable to charter schools.[4]

Virginia ranked the lowest among the states that allow charter schools because, even though it does not have an official cap, it imposes limits on charter authorization, provides low state funding per pupil, and has a small number of charter schools. State officials are considering changes to the charter laws, which might make charter schools feasible in the future. Alabama and Kentucky do not have charter laws; therefore, transitioning DDESS to charter schools there is not an option.

Two avenues are available for the charter school option. Independent charter schools could be established on a school-by-school basis, or an existing network (i.e., a CMO or EMO) could absorb schools. State law governs the process of obtaining a charter and varies across states. An authorizer designated by the state must approve charter schools. States vary in the number and types of institutions that can authorize charter schools. State departments of education and LEAs are the most common authorizers, and many states require applicants to obtain preliminary approval from the state department of education prior to review by another authorizer. Some states have identified additional authorizing bodies, including municipal governments

[4] Each year, CER, 2014, rates each state's charter school laws. The charter school law is scored numerically and ranked on a scale from A to F. The four major components analyzed are multiple and independent authorizers (a component in a law that permits authorizing by such entities as universities, independent charter school boards or commissions, nonprofit organizations, or mayors); number of schools allowed per state; independence from existing state and district operational rules and procedures; and fiscal equity.

Table 4.1
State Charter School Laws and Implementation

State	Installation	Grade	Year Law Passed	Charter Schools	
				Operating	Permitted
Ala.	Maxwell AFB		No charter law		
	Fort Rucker				
Del.	Dover AFB	C	1995	21	No cap
Ga.	Fort Benning	C	1993	110	No cap
	Fort Stewart				
Ky.	Fort Knox		No charter law		
	Fort Campbell				
Mass.	Hanscom AFB	C	1993	81	120
N.C.	Fort Bragg	C	1996	127	No cap
	Camp Lejeune				
N.Y.	West Point	B	1998	233	460
S.C.	MCAS Beaufort	B	1996	59	No cap
	Fort Jackson				
Tenn.	Fort Campbell	C	2002	71	No cap
Va.	MCB Quantico	F	1998	7[a]	No cap
	NSWC Dahlgren				

SOURCE: Ziebarth and Palmer, 2014.

[a] Although the CER report noted that Virginia had six charter schools, the Virginia Department of Education's website lists seven charter schools currently in operation (Virginia Department of Education, undated).

and universities. Not surprisingly, obtaining a charter in a state that limits the number and type of authorizers is more difficult than doing so in other states. For example, in Virginia, only local school boards are allowed to authorize charter schools. Currently, only seven charter schools are in operation across the entire state, and CER gave the state an F grade, in part because of the extreme difficulty in gaining approvals.

South Carolina, on the other hand, has multiple authorizers: local school districts, the South Carolina Public Charter School District, and higher education institutions (Ziebarth and Palmer, 2014). Currently, 59 charter schools operate in the state, and it received a B from CER. As previously noted, most states with DDESS do not cap the number of charter schools allowed. Massachusetts limits the number of charter schools to 120 and New York to 460. However, even where there is no cap, approval is not guaranteed.

Eight charter schools already operate, each on a different military installation, in a total of seven states: Arizona, Arkansas, California, Florida, Illinois, Louisiana, and Maryland. These schools can serve as models for other communities interested in the charter school option. There are no existing charter schools on installations in states where DDESS are located. The eight charter schools on military installations are not uniform in their governing arrangements. CMOs and EMOs operate four of the charter schools, and other organizations run the

other four independently. State departments of education authorized three, and local authorities authorized five. Four operate as their own LEAs, and four remain part of existing school districts, from which they continue to receive certain services (GAO, 2013).

Wheatland Charter Academy at Beale AFB in California was the first charter school established on a military installation. It opened in SY 2001–2002, and Belle Chasse Academy at Naval Air Station Joint Reserve Base New Orleans followed in SY 2002–2003. No additional charter schools were established on military installations until 2008, when the DoD *Quadrennial Review* (DoD, 2008) recommended that parents should be able to form charter schools to increase the schooling options available to military-connected children (GAO, 2013). One new charter school was opened on a military installation each year from 2008 to 2012. LEARN 6 at Naval Station Great Lakes in Illinois opened in 2012 and is the newest of the eight schools.

Community stakeholders establish charter schools for a variety of reasons. Parents might have concerns about school quality and want alternatives to underperforming local schools. Installation commanders might have concerns about attracting and retaining families and, in some cases, have served as a driving force in establishing charter schools. Likewise, private housing developers that operate residential housing on installations have initiated the formation of some charter schools because they believe that those schools will make on-base housing more attractive to families. This was the case with Jacksonville Lighthouse Charter School on Little Rock AFB and Imagine Andrews Public Charter School on Joint Base Andrews–Naval Air Facility, which were both supported by contractors that run on-base housing (DoD, 2012). In other cases, CMOs themselves might initiate efforts to create new charter schools to accommodate excess demand at their existing off-base campuses. Interestingly, public school educators were the driving force behind Manzanita Public Charter School on Vandenberg AFB. Its location on the installation was not a result of a stated mission to educate military-connected children but rather because the installation was the only facility available to it (GAO, 2013).

Charter schools are established with particular missions or visions, which are spelled out by the founders and might include a focus on a particular academic area. Among the eight charter schools on military installations, only three—Belle Chasse, Imagine Andrews, and Sigsbee Charter School on Naval Air Station Key West—have stated missions to meet the needs of military-connected children and families. All eight charter schools enroll significant numbers of military-connected children and provide them with services related to military life. As of SY 2011–2012, the percentage of the student body who are military-connected children at these schools ranged from 42 at Manzanita to 90 at Belle Chasse (GAO, 2013).

Although installation stakeholders might be interested in establishing a charter school to serve military-connected children exclusively, state laws require open-enrollment policies and generally prohibit enrollment restrictions. Even charter schools established on installations would likely have to open enrollment for the surrounding community. However, some states have accommodated charter schools on military installations with exceptions to their usual enrollment rules. Belle Chasse, Imagine Andrews, and Sigsbee were all granted permission to give some enrollment preferences to military-connected students. Belle Chasse gives priority to military-connected children within a hierarchy of preferences. Imagine Andrews received a state exemption that allows it to hold separate enrollment lotteries for students who reside on and off the installation, as long as students residing off base (including military-connected students who do not live on base) make up at least 35 percent of the school's population. Sigsbee holds separate lotteries for active-duty and non–active-duty families, with priority given to the

former (GAO, 2013). The fact that these schools were founded with an explicit mission to serve military-connected children helped them receive approval for giving enrollment preferences to those children. Stakeholders looking to form charter schools at other installations might consider a similar approach.

Whether or not a charter school can offer enrollment priority for military-connected students, it still might not have the capacity to serve all children residing on that installation. When enrollment applications exceed capacity, students are chosen by lottery and added to waitlists. This presents a challenge for military-connected students who transfer midyear because they would be added to the end of the waitlist and not able to immediately enroll at a charter school that is at capacity. Given that this is a highly mobile population, the inability to offer admission to midyear transfers might be of concern.

Where state policy is favorable and community support sufficient, individual charter schools might be feasible and desirable at some of the present DDESS locations. Proposed charter schools need local advocates to write applications and push for approval by the appropriate authorizing bodies. As previously discussed, community-initiated charter schools rely on a core of local stakeholders to advocate for and oversee the schools. After community support is secured, a dedicated board needs to prepare and submit a charter proposal. The proposal then needs to be reviewed by the appropriate charter school authorizer, who will eventually approve or reject the proposal. There is no set timeline for this process. Given the experiences at the eight military installations that have charter schools, this process is likely to take at least one year, but that could be longer depending on state-specific circumstances (DoD, 2012). These considerations could limit the feasibility of establishing charter schools. DoD officials, including installation commanders, might be limited in their involvement in the establishment and management of charter schools; they might be restricted to an advisory role. High turnover of military personnel could also complicate this approach. Our interviews indicate that this is already a challenge for DDESS parent–teacher organizations and school boards. If the composition of a charter school's board is not consistent, it might not sustain the school. There might be some advantage to seeking local authorization for the charter school and remaining part of the existing LEA. Another option that might add stability would be to work with a local university, housing developer, or group of local educators to initiate and oversee a charter school. As previously noted, a group of local educators, and not DoD, was the driving force behind the establishment of Manzanita at Vandenberg AFB.

Working with a CMO or EMO to convert existing DDESS to charter schools would address some barriers to sustainability expected with individual charter schools and reduce the burden on local stakeholders. A management organization could be responsible for a network of charter schools within one installation or across multiple installations. Alternatively, individual charter schools could be established and operated by different management organizations. Four EMOs and CMOs currently operate one charter school each on military installations: Imagine Schools, LEARN Charter School Network, Lighthouse Academies, and Sonoran Schools. Given that those partnerships have been successful, there is precedent for the management-organization approach.

However, three of the four large multistate charter operators with whose representatives we spoke said that they were not interested in operating these schools. They expressed several concerns. The acquisition of DDESS might not fit the mission of the organization. Many charter schools are established to serve disadvantaged communities. Geography also poses challenges for management organizations. CMOs tend to be geographically concentrated, and

most nonprofit operators do not operate in multiple states. CMOs might not be willing to take over either an individual DDESS or group of schools outside their current regions or states, especially at geographically isolated installations. Those with whom we spoke said that this would be difficult and inefficient for their organizations. One representative from a for-profit EMO did claim to have capacity and interest in either an individual or a network approach but was concerned about the large number of DDESS and would prefer to take several years to convert them.

Most charter schools are not unionized, and some operators expressed concerns about union busting and the effect it could have on their image. If an operator were to take over DDESS, the operator would likely not work with the present teacher's union, which could result in conflict with DDESS teachers and the community.

Operators also expressed concern about the lack of school choice. In general, charter schools are established to provide a community with schooling options. The provision of alternatives to families is part of the charter school philosophy, and charter operators might be wary of running schools restricted to military-connected children. The eight charter schools currently operating on military installations have open enrollment, with some exceptions. As previously mentioned, some states have granted approval for these schools to give preference to military-connected students or even reserve a certain number of slots for those students. Charter operators might be more amenable to running schools with some degree of open enrollment. This option would raise the same transition, personnel, and security issues that the LEA option raises. As previously discussed, the charter option could require significant transition time because there is no set timeline for preparing an application and securing state approval.

A charter operator would also be able to use existing DDESS facilities and resources. If the adjacent LEA serves as charter authorizer, DoD could transfer facilities to the LEA, just as under option 2. If another entity is the charter authorizer, DoD might prefer to transfer facilities under a lease or other conditions that allow DoD to reclaim the facilities if the charter school ceases operation.

Of the eight existing charter schools on military installations, six are located within the protected security perimeter and thus face the same security challenges discussed with the other options. The other two chose to be located outside the perimeter to increase access and improve community relations (GAO, 2013).

Option 6: Contract with an Education Management Organization

The final option involves contracting with EMOs (or possibly CMOs) to operate any number of DDESS. This differs from the charter school option because the schools would remain under DDESS jurisdiction, so state laws governing charter schools would not apply. Different organizations could manage individual DDESS. Alternatively, DDESS could contract with an EMO to manage a whole network of schools within an installation or across multiple installations.

It is unclear whether a CMO would be willing to operate DDESS that are not established as charter schools. Such an arrangement might conflict with the organization's mission or policies, given that CMOs are established exclusively to run charter schools. Furthermore, a contract school would not be a school of choice and would serve the students assigned to it. Enrollment would not be open to civilian students off the installation. As previously discussed, this arrangement conflicts with the goal of school choice that is central to the charter school

movement. EMOs likely have more flexibility with contracting, and their missions might not prohibit such an arrangement. We did speak to someone from one for-profit operator who expressed interest in contracting with DDESS.

Although contracting with an EMO is similar to contracting with an LEA, the former could pose additional challenges. As with the charter school option, a management organization might not want to operate geographically disperse schools or take over schools outside its current region. LEAs are already situated near the installation they would be serving. It would likely be difficult to transition all DDESS to one EMO at once. At the same time, it also might be challenging to coordinate with multiple operators at each installation. EMOs interested in a DDESS contract will likely vary in their capacity and regional preferences.

A contract arrangement with an EMO would have to consider the same transition and security issues discussed under the charter school and LEA options. The transition time might be shorter than with a charter school because there is no application or state approval process involved. Further, the transition to EMO management could be smoother if the EMO were to retain current staff members and perhaps other aspects of DDESS practices, but these practices might be inconsistent with the other schools the EMO currently operates and therefore less appealing to the EMO.

Feasibility of Options

Table 4.2 reviews the feasibility of each of the six options at each installation. We assign the following feasibility ratings to the options:

- **feasible.** The option can be implemented without significant barriers or requirements.
- **conditionally feasible.** The option can be implemented only if certain conditions, such as state cooperation, are met.
- **infeasible.** The option cannot be implemented under present law or policy.

Option 1: Status Quo

Preserving the status quo, as earlier noted, is a feasible option at every installation.

Option 2: Transfer to Local Educational Agencies

The transfer to LEAs is feasible at most installations. At the installations in Massachusetts, Delaware, and Kentucky, there might be barriers to transfer given state law in Delaware and the lack of precedents in the other states for the education of base residents. Special arrangements have served Hanscom and Dover AFBs for more than 50 years, and Kentucky has no other military installations. We therefore consider the transfer option to be conditionally feasible for Hanscom and Dover AFBs and Fort Knox and Fort Campbell.

LEAs would need considerable planning time—at least 12 to 24 months and possibly longer—to prepare for the transition. DoDEA would also have to commit some time and resources to arranging the transfer, but it is possible that existing staff could be redirected to these activities because other activities, such as hiring, would be reduced. Given sufficient resources and use of DDESS facilities, LEAs would have the capacity to assume responsibility for DDESS.

Table 4.2
Feasibility of Options, by Installation

State	Installation	Option 1 *Status Quo*	Option 2 *Transfer to LEAs*	Option 3 *Contract with LEAs*	Option 4 *Coterminous Districts*	Option 5 *Individual Charter Schools*	Option 6 *Contract with EMOs*
Ala.	Maxwell AFB	●	●	●	◒	○	◒
	Fort Rucker	●	●	●	◒	○	◒
Del.	Dover AFB	●	◒	●	◒	◒	◒
Ga.	Fort Benning	●	●	●	○	◒	◒
	Fort Stewart	●	●	●	○	◒	◒
Ky.	Fort Knox	●	◒	●	◒	○	◒
Ky. and Tenn.	Fort Campbell	●	◒	●	○	○	◒
Mass.	Hanscom AFB	●	◒	●	◒	◒	◒
N.C.	Fort Bragg	●	●	●	◒	◒	◒
	Camp Lejeune	●	●	●	◒	◒	◒
N.Y.	West Point	●	●	●	◒	◒	◒
S.C.	MCAS Beaufort	●	●	●	◒	◒	◒
	Fort Jackson	●	●	●	◒	◒	◒
Va.	MCB Quantico	●	●	●	◒	○	◒
	NSWC Dahlgren	●	●	●	◒	○	◒

NOTE: ● = feasible. ◒ = conditionally feasible. ○ = not feasible.
RAND *RR855-Table 4.2*

Option 3: Contract with Local Educational Agencies

The option to contract with LEAs is feasible at every installation. The special arrangements, which have been operating at Hanscom and Dover AFBs for more than 50 years, provide a precedent that it is possible to contract with LEAs for the education of military-connected students. As with the transfer option, LEAs would need significant transition planning time and resources.

If DoD chose to establish a large number of new contracts with LEAs to serve current DDESS students, this might prompt some of the approximately 1,300 LEAs that educate military-connected students to argue for full federal reimbursement or for greater reimbursement than Impact Aid provides.

Option 4: Coterminous Districts

We characterize the coterminous district option to be conditionally feasible for all but three installations. The Georgia constitution prohibits the creation of new districts at Fort Benning and Fort Stewart, and we think that the barriers to an agreement between Tennessee and Kentucky preclude establishing a single district at Fort Campbell. Establishing a coterminous district at the other installations would require state cooperation and possibly legislation. This option would require a longer transition period than the other options because there would be no existing district infrastructure.

Option 5: Individual Charter Schools

The feasibility of establishing individual charter schools on installations varies by state. Four of the eight existing charter schools on military installations are independent schools, and four are run by management organizations. Currently, establishing such schools is not a feasible option at Maxwell AFB, Fort Rucker, Fort Knox, and Fort Campbell, where state laws do not permit creating new charter schools. Although Virginia does not have a cap on charter schools, several sources have indicated that conditions are unfavorable, so we consider this option to be infeasible at MCB Quantico and NSWC Dahlgren. At the other installations, we consider this option to be conditionally feasible. Specific, state-approved authorizers must authorize charter schools. Some states limit the number and type of authorizers or cap the total number of charter schools that can be authorized. Local boards of directors that typically include parents, guardians, and other community stakeholders would manage individual charter schools. Therefore, there must be stakeholders at the installation who are motivated and willing to take on that responsibility. As previously noted, maintaining consistent leadership might be challenging given the transient nature of the military population.

Option 6: Contract with an Education Management Organization

The option of contracting with an EMO (or CMO), which has yet to be done at a military installation, is conditionally feasible at each installation. State charter school laws would not be a barrier because the contract would be between DDESS and the CMO or EMO. However, some charter operators find the option of assuming responsibility for DDESS to be undesirable. They find it difficult to operate schools in geographically isolated areas. Additionally, no one network might have the capacity to assume responsibility for all DDESS, so contracts with multiple operators would be required to cover multiple installations. The desirability of this option might vary by installation.

Assumptions and Risks

Any change in schooling arrangements might affect service members' decisions about where to live. Most we interviewed said that, if they were unhappy with their schooling options, then they might choose to live off base. Many parents we interviewed said that they chose on-base housing specifically to access the DDESS, even when higher-quality housing was available off base. We often heard that parents would live away from the base if LEAs operated the schools or if students would be bused to off-base LEA schools. LEAs with higher student achievement are often available farther away from the base. Many parents said that they would be willing to accept a longer commute to work in order to enroll their children in these high-performing

schools. If other service members do not replace these families, private housing developers could permit non–service members to live in base housing under the terms of their contracts. As several installation commanders pointed out, such changes could affect the composition of the on-base population and thus change activities and climate on the installations.

Summary

Maintaining the status quo (DDESS or special arrangement) is feasible at every installation. Contracting with an LEA also appears to be feasible at every installation. Transfer to an LEA is apparently feasible at most installations, with some potential obstacles at two installations historically served by special arrangements (Hanscom and Dover AFBs) and at the installations in Kentucky, which lacks a precedent for educating on-base students.

The other options have significant limitations or concerns about legality or implementation. Creating coterminous districts would require state cooperation, which might be difficult to obtain, and impossible in Georgia. Charter schools are legally or effectively not allowed in states covering six of the 15 installations. Finally, contracting with EMOs might be feasible, but there are significant questions about the capability and willingness of EMOs (or CMOs) to undertake school operation in all of the locations.

CHAPTER FIVE

Evaluation of School Quality

School quality, as perceived by military personnel, has been shown to affect military families' housing and career decisions (Wenger and Hodari, 2002). Military personnel might choose to live on base to access DDESS or to live off base in an area with well-regarded schools.

In this chapter, we briefly review some research on indicators used as proxies of school quality, and we review studies on schooling of military-connected children. It is important to emphasize that there is no consensus on what defines quality schools. School quality is multifaceted and complex, so there is no single factor that guarantees it (Mayer, Mullens, and Moore, 2000). But there are indicators that the literature has identified as related to learning and that represent the productive function of education, including school, input, processes, and outputs (Mayer, Mullens, and Moore, 2000). These indicators or school characteristics can shed light on some aspects of school quality.

We used those indicators identified through the literature and previous studies of military-connected children to evaluate the options for educating such children.

We present quantitative indicators on DDESS and LEA performance, student graduation rates, student attendance, teacher education, school size, and student characteristics. Information on class size or teacher–student ratio, teacher certification, and teacher experience was not reported because DDESS and each of the states use different formulas for reporting this information. We also present findings on the perceived quality of DDESS academic and nonacademic program and support services. We include common themes drawn from DDESS stakeholder judgments of the availability of their schools' programs and supports and how they meet their students' needs. For logistical reasons (e.g., acquiring Office of Management and Budget clearance or lack of contact information for military parents who send their children to off-base schools), we could not interview LEA stakeholders besides selected superintendents (such as off-base parents whose children are enrolled in LEAs, LEA teachers, and LEA principals). Therefore, we do not compare the quality of programs in both school systems. As a result, the statements of DDESS stakeholders, though informative, obviously represent only one group of stakeholders. Hence, it is important to interpret these statements within the context in which they were made and to be careful in deriving definitive conclusions based on them.

We end this chapter by assessing the quality of other options.

Background and Evaluation Criteria

To identify relevant school quality indicators, we reviewed previous studies of schooling for military-connected children, which have also considered many of these dimensions (UMass

Donahue Institute, 2003; Kitmitto et al., 2011). For example, the UMass Donahue Institute, 2003, study compared DoDEA and non-DoDEA schools on such indicators as school academic performance, staff qualifications, graduation rates, facilities, programs provided, and student characteristics. Previous unpublished RAND research highlighted indicators of school academic performance, student characteristics, and class size. This unpublished study, as well as other DDESS transfer studies, such as the 1988 RAND report (Bodilly, Wise, and Purnell, 1988) and the 2011 American Institutes for Research report (Kitmitto et al., 2011), identified ways in which military families differ from civilian families. For example, children of military families might experience more stress than their peers as a result of their parents' deployments. The unique characteristics of military families could influence their preferences and hence should be accounted for in this study. This includes mental and emotional health services for students with deploying family members, which can be particularly critical for families with special-need students (Kitmitto et al., 2011). Engel, Gallagher, and Lyle, 2010, found that deployments had modest effects on academic achievement of DoDEA students. The authors attributed the small effect size to the services that DoDEA schools provide that address the unique circumstances of military families and their children.

We also reviewed previous studies on school improvement, school effectiveness, and school accountability, as well as reports of school monitoring, such as those published by NCES. This research provided information on the importance of school indicators highlighted in previous studies and their relationships with school outcomes. Informed by our review, we developed a list of school quality characteristics (see Appendix A). Appendix A has a more detailed review of selected studies on school quality dimensions. We summarize the key dimensions here, classifying them into three categories: school outcomes, school inputs, and school processes. School outcomes represent student learning (as measured by academic achievement), as well as other indicators, such as student graduation rates and attendance. School outcomes are, in part, a function of various characteristics of schools or school inputs and school processes. School inputs represent the internal conditions or challenges a school might face in educating its students. School processes represent the internal processes (e.g., programs and academic and nonacademic supports) that are largely designed to respond to the school input in order to ensure the delivery of appropriate services to students and facilitate student achievement.

School Outcomes

We identified various school indicators, starting with school academic performance, corresponding to schools' primary mission of educating students. Parent satisfaction and engagement with the school are key indicators of how parents perceive school quality. Schools are expected to promote students' future economic capacity; we therefore include graduation rates in our indicators. We also include student absenteeism as an indicator of school outcome. High absenteeism or low graduation rates can indicate that a school is not meeting students' needs and that it might not have effective interventions to help students. Poor attendance can also indicate low student engagement, which has a detrimental effect on student achievement.

School Inputs

Teacher quality is an important determinant of student learning, including longer-term outcomes (Chetty, Friedman, and Rockoff, 2014). Measuring teacher quality is complex. Recent studies that used value-added modeling show that that there are differences in effectiveness among individual teachers (Chetty, Friedman, and Rockoff, 2014). Given that we could not

conduct value-added modeling with data available, we looked at teacher qualifications. Such indicators are much weaker for determining the effectiveness of teachers, but they do shed some light on preparation. Previous research found teacher education or attainment of graduate degrees to have negligible effect on elementary school student achievement (Darling-Hammond, 2000; Darling-Hammond et al., 2005; Kane and Staiger, 2005) but to have small positive effects for secondary-school student achievement (Goldhaber and Brewer, 1997; Clotfelter, Ladd, and Vigdor, 2007). Regardless, there is value in reporting teacher education levels because they can serve as a quality signal to stakeholders, such as parents.

There is also some evidence that subject-specific certification, for which a teacher must demonstrate subject-matter expertise, has positive association with student achievement, especially in secondary mathematics courses (Goldhaber and Brewer, 2000; Cavalluzzo, 2004).

Other teacher characteristics, such as years of experience, might be related to outcomes. Studies have shown that the impact of experience is strongest during the first few years of teaching; after that, marginal returns diminish (Hanushek et al., 2005; Clotfelter, Ladd, and Vigdor, 2007).

Inputs, such as class size or teacher–student ratio affect student performance. Meta-analysis of hundreds of studies that focused on class size shows that having a smaller class size raises student performance (Mayer, Mullens, and Moore, 2000). More-recent studies have found both short- and long-term benefits of class size, including increases in reading and math (Angrist and Lavy, 1999; Cho, Glewwe, and Whitler, 2012) and in the probability of attending college (Dynarski, Hyman, and Schanzenbach, 2013).

School size is associated with increased student performance (Glass and Smith, 1979; Robinson and Wittebols, 1986; Slavin, 1989; Robinson, 1990; Kuziemko, 2006; Unterman, 2014). Some research found that smaller schools are more likely than very large schools to offer a more-cohesive culture and a good climate for learning (Monk and Haller, 1986; Haller, Monk, and Tien, 1993; Mok and Flynn, 1996).

Studies have shown that school facilities are necessary for student learning, as are other conditions that support a strong academic program. Neilson and Zimmerman, 2014, found that investments in school construction in a poor, urban school district resulted in an increase in student test scores.

School Processes

The academic and nonacademic programs offered to students are critical criteria for this study. Military-connected children must cope with the deployment of one or more parents. The absence of a parent and the associated stress can distract a student from schoolwork; therefore, schools serving military-connected children should have support services in place to meet those unique needs (Kitmitto et al., 2011). Pairing academic offerings with nonacademic support services can help students overcome challenges that can hinder their ability to learn and foster positive social and emotional development.

Table 5.1 lists the dimensions of school quality that informed our evaluation framework, along with examples of specific indicators.

Table 5.1
School Quality Evaluation Dimensions

Component	Dimension	Example Indicator
Outcomes	School performance	Average student scores on standardized tests and state exams by grade level and content area
	Attendance and graduation rates	Student attendance rates High school graduation rates
	Parent satisfaction and engagement	Percentage of parents satisfied by various school aspects Percentage of parents engaged in various school activities
Inputs	School size	Number of students in school
	Teacher–student ratio	Teacher–student ratio
	Facilities	Condition of school facilities
	Teacher qualification	Average years of experience and proportion of novice teachers Education level
Processes	Programs offered	Programs available (e.g., AP or gifted) Co-curricular activities offered
	Support services offered	Types of available services (e.g., deployment-related counseling or peer support)
	Special education	Availability and type of services provided to special-education students

NOTE: AP = Advanced Placement.

Examining School Output and Input

In this section, we present findings from our quantitative analysis of school assessments, graduation and attendance data, teacher qualifications, teacher–student ratio, and school size for both DDESS and adjacent LEAs that would likely receive DDESS students if they were to assume responsibility for their schooling. Information on the quality of DDESS facilities is in Chapter Four.

School Academic Performance

Ideally, we would compare the performance of DDESS and LEA schools in math and reading directly. Such comparison, however, is infeasible because DDESS and LEAs test their students using different assessments that vary in content and psychometric properties. DDESS use TerraNova, which covers topics or standards agreed upon by a national panel of experts, while the state assessments cover topics addressed by the standards of the specific state, as required by the No Child Left Behind Act of 2001 (Pub. L. 107-110, 2002). TerraNova is a nationally normed test, meaning that students' scores reflect their achievement in comparison to all students who took the test nationally. The state assessments are criterion-referenced and provide information on whether students mastered the state standards. As a result, TerraNova and state assessments report different scores. For example, TerraNova reports national percentiles, while the state assessments report the percentage of students achieving proficiency or scale scores in relation to state standards.

Because of these differences, we conducted separate academic achievement analyses for each school system in SY 2012–2013 and indirectly compared their performance by using the SY 2012–2013 National Assessment of Educational Progress (NAEP) reports that rank the states and DoDEA nationwide. We also conducted DDESS and LEA academic achievement analyses for the two previous academic years. Academic information was missing on several of the adjacent LEAs for the previous years, but, for the ones with data available, their performance was similar. Specifically, those LEAs that ranked in the bottom two quartiles over the two prior years continued to be ranked in these quartiles during SY 2012–2013. In this section, we report information from SY 2012–2013, which is the most-recent publicly available data with minimum missing information. For DDESS, we calculated the median scores of the TerraNova national percentiles across grade levels (3 through 11) for both math and reading within each of the 13 installations. (We excluded the two special arrangement installations because their military-connected children are tested using state assessments.) We identified how many installations fall above and below the national median on TerraNova for reading and for math. We did a similar analysis using local percentiles to examine the ranking of DDESS with other DoDEA schools.

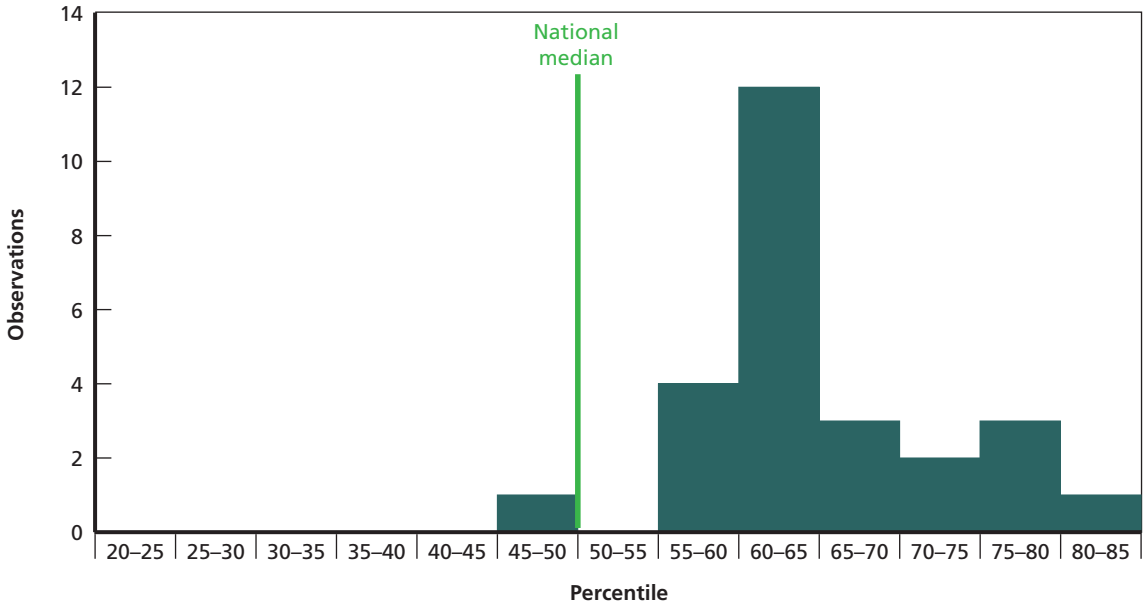
For the adjacent LEAs, we ranked the districts, as well as their schools (elementary and middle schools) within their states. Specifically, we used the school-level percentage-proficient scores to calculate multiple percentiles reflecting the ranking of the school within its state for each subject and grade level tested.

We estimated a school-level median, which is the midpoint of all the percentile observations within a school for grades 3 through 6, and another median for middle school grade levels. We also estimated two district medians, one representing the midpoint of the distribution of all the math and reading percentile scores for grades 3 through 6 across the district schools, and another representing the midpoint of all the percentile scores for grades 7 and 8 within a district. Then we categorized the district- and school-level medians into four quartiles, with Q4 representing the top 25-percent and Q1 representing the lowest 25-percent median scores.

There are limitations to using the percentage-proficient metric for examining LEA academic performance. This metric treats all test scores that are above the proficiency cut score the same (and all scores below the same), and it exaggerates small score differences near the cut score. The cut score can vary across grade levels and subjects, so combining across grades might affect the results, especially if the distribution of students across grades varies. To address this issue, we conducted the same analysis separately for each grade level and subject and obtained similar results regarding the rankings of the LEAs. In this section, we report findings across grades and subjects (math and reading) because the results from both analyses were similar. Two exceptions are Daleville City School District and King George County Schools. For these two sites, we report the risks and mitigations pertaining to school quality using information from the analysis conducted separately for each grade level and subject.

Figure 5.1 shows the number of installation observations—26, representing installation median scores for reading and for math—that fall above and below the national median on TerraNova. DDESS academic performance is consistently above the national median. The highest-achieving installations are West Point, NSWC Dahlgren, and Maxwell AFB. This is not surprising, given that these installations tend to have parents of higher socioeconomic status as measured by the percentage of students receiving free or reduced-price lunch services

Figure 5.1
Number of Installation Observations Scoring Above the National Median on TerraNova



SOURCE: DoDEA assessment data.
NOTE: There are 13 installations, and each has two observations (one for math and one for reading). Adding the number of observations graphed totals 26. Each column shows the number of observations for that column.
RAND *RR855–5.1*

(see discussion later in this chapter under "School Size and Student Population Characteristics"). One installation, Fort Jackson, scored marginally below the median and only in math.

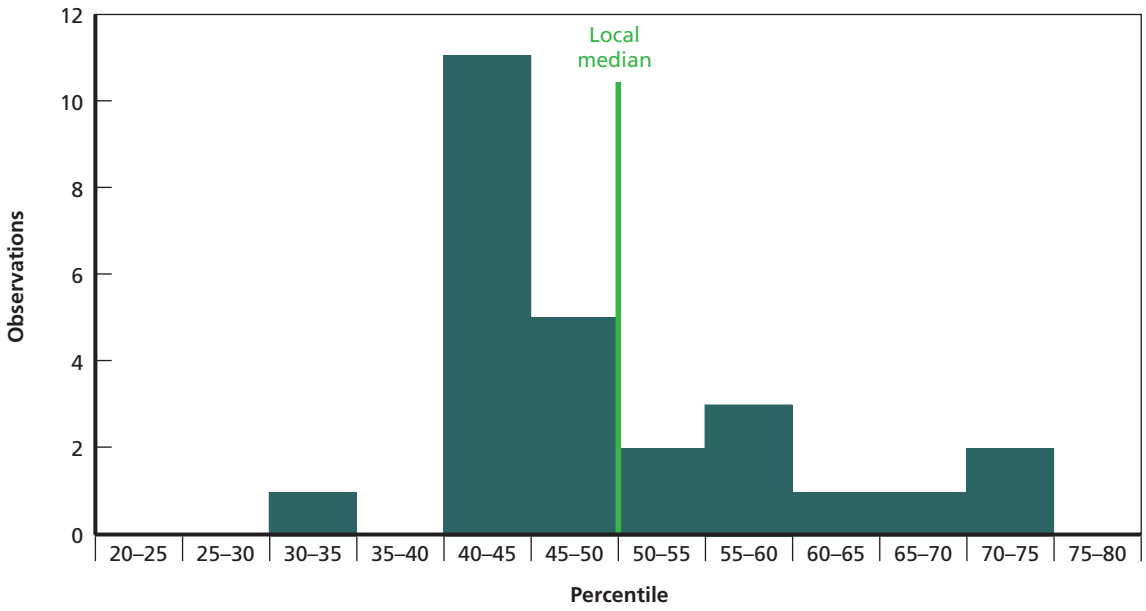
When we view DDESS performance in the context of DoDEA as a whole, we see DDESS performing comparably to other DoDEA schools, with some above and some below the DoDEA median (Figure 5.2). There is a range of performance for DDESS. For example, at the low end, Fort Jackson is ranked at the 42nd percentile for reading and the 32nd percentile for math, which is much lower than the DoDEA median (Table B.1 in Appendix B provides all the percentiles). At the high end, West Point is ranked at the 68th percentile for math and the 72nd percentile for reading. That is not surprising given the variation in the student population it serves (see discussion later in this chapter on percentages of students receiving free or reduced-price lunch services). Overall, the median performance across DDESS installations is at the 48.5 percentile, which is nearly equal to the overall DoDEA median of 50.

Most of the LEAs that would receive DDESS students from adjacent installations, should they assume responsibility for educating such students, rank in the bottom two quartiles in their respective states (Figure 5.3). Within these LEAs, there is a variation in school performance, with a small proportion of schools ranking in the top two quartiles (see Tables B.2 through B.5 in Appendix B).

In contrast, the special arrangement installations contract with adjacent LEAs that are in the top two quartiles of their states (Table 5.2).

We also look at the performance of the study states and DoDEA on NAEP. If the study LEAs are ranked at the bottom of the quartiles in their states and the states are also low-performing on NAEP, this would suggest that the LEAs are not high performing. This reasoning also applies to DDESS. For example, if DDESS perform at or above the national and local

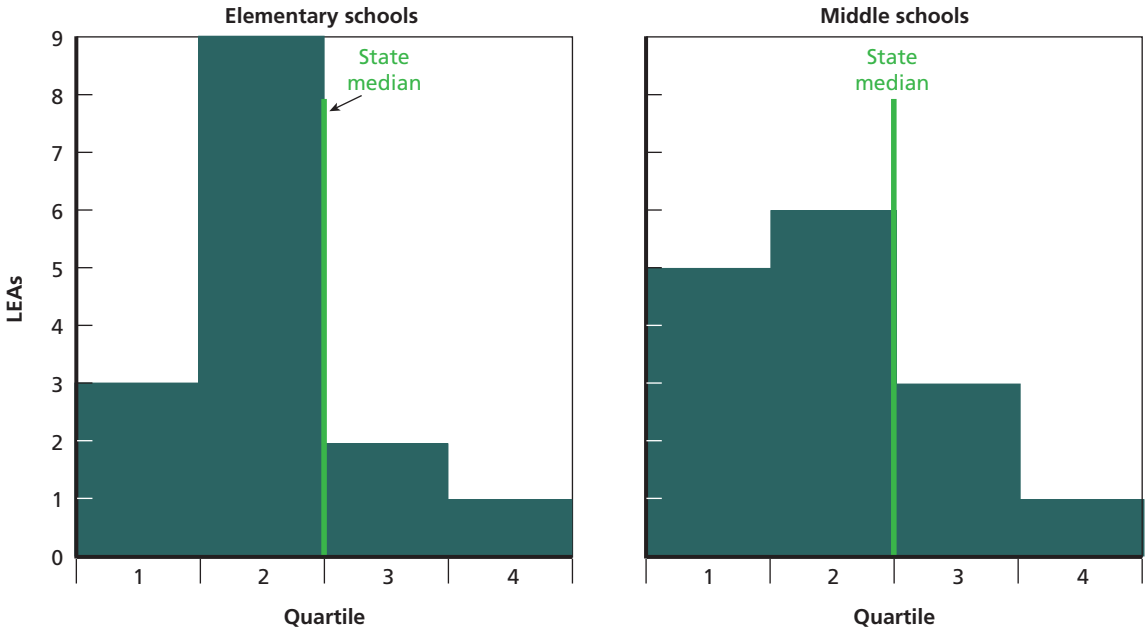
Figure 5.2
Number of Installation Observations Scoring Above the Local (Department of Defense Education Activity) Median on TerraNova



SOURCE: DoDEA assessment data.

RAND *RR855–5.2*

Figure 5.3
Local Educational Agencies' Academic Performance Compared to the State Median



SOURCE: Publicly available state assessment data.

RAND *RR855–5.3*

Table 5.2
Local Educational Agency Academic Achievement for Special Arrangements

Installation	LEA and Level	District Quartile	District Median Percentile	Distribution by District (percentage of schools)			
				Q4	Q3	Q2	Q1
Dover AFB	Caesar Rodney School District elementary	4	78.3	55.6	33.3	11.1	0.0
Hanscom AFB	Lincoln Public Schools elementary	4	74.1	66.7	33.3	0.0	0.0
Dover AFB	Caesar Rodney School District middle	3	67.9	33.3	66.7	0.0	0.0
Hanscom AFB	Lincoln Public Schools middle	3	54.2	0.0	50.0	50.0	0.0

medians within the DoDEA system and DoDEA performs high on NAEP, then this implies that DDESS are high performing. Using the SY 2012–2013 NAEP report cards for math and reading for grades 4 and 8, we identified the number of states that perform below DoDEA and the study states. This information is published on NCES's NAEP website (NCES, 2015) and is based on statistical differences in scale scores. We find that DoDEA schools (which include DDESS) performed high nationwide: On average, 39 states perform significantly below DoDEA schools on NAEP. Most study states, specifically those in the southern region of the country, are among the lowest-ranked nationwide (Table 5.3). Combining the findings

Table 5.3
State Performance on the National Assessment of Educational Progress (Number of States Ranked Significantly Lower), SY 2012–2013

School Type	Math		Reading		Average
	Grade 4	Grade 8	Grade 4	Grade 8	
Massachusetts	49	51	46	48	49
DoDEA	28	34	48	46	39
Virginia	29	25	36	15	26
Delaware	20	12	28	14	19
North Carolina	26	21	18	9	19
Kentucky	12	8	21	23	16
New York	11	11	21	14	14
Georgia	11	7	16	9	11
Tennessee	9	6	11	14	10
South Carolina	5	8	4	6	6
Alabama	1	1	11	2	4

SOURCE: NCES, undated.

NOTE: We have put school types (left column) in descending order by the average number of jurisdictions with statistically significantly lower performance on NAEP across subjects and grades. The total number of jurisdictions is 52: the 50 states, DoDEA, and the District of Columbia.

that the study states (with some exceptions, such as Massachusetts and Virginia) perform low nationally and that the LEAs adjacent to installations rank in the two lowest quartiles statewide suggests that the adjacent LEAs in Alabama, Georgia, Kentucky, South Carolina, and Tennessee have low-performing schools.

Within the adjacent low-performing LEAs, school-level performance varies, but most schools are in the bottom two quartiles. The low performance of adjacent LEAs and large proportion of low-performing schools within the LEAs stem in part from characteristics of the students that they serve (e.g., prior academic experience and poverty level), as well as neighborhood characteristics. Various studies show that a student's socioeconomic status (SES) contributes to a student's academic performance. The size of contribution varies from small to large across studies (White, 1982; Sirin, 2005; Chingos, Whitehurst, and Lindquist, 2014). But some of the variations might also reflect the quality of teachers, programs, and services provided to students.

Because we did not conduct value-added analysis for this study, we cannot associate the below-average LEA rankings with below-average school quality. We also expect that, because of differences in family resources and other characteristics, such as prior academic experience, DDESS students, if transferred, might perform better than their peers in the adjacent LEAs. A 2011 American Institutes for Research study examined the performance of military-connected students in eight districts. It found that, when SES of military-connected students was similar to that of other students in the LEA, the military-connected students performed around the district average. When military-connected students had higher SESs than their peers in the LEA, they performed above the LEA average (Kitmitto et al., 2011). DDESS students' families tend to be economically secure (although many are considered of lower SES) because at least one parent is employed and they have government-provided residences and health insurance. So those students' academic performance might be at or above the district average if they were transferred to these low-performing LEAs. However, there is a concern that their academic performance might be lower than it would be if they were to continue in DDESS. Further, the fact that they might outperform their peers if transferred to an LEA does not imply that the education they would receive is of similar or higher quality than what they would have received if they stayed in DDESS.

Student Graduation Rate

We compared the graduation rates of the LEAs adjacent to the installations that have high schools (there are four DDESS high schools) to their state averages. We also ranked their schools based on the state distribution by calculating their percentile ranks and classifying their schools into four quartiles. We did not directly compare DDESS and LEA graduation rates because they have different reporting requirements: LEAs estimate graduation rates based on 9th-grade cohort, as required by No Child Left Behind, while DDESS estimate graduation rates based on 12th-grade enrollment (e.g., percentage of 12th graders who graduated).

The installations with DDESS high schools are adjacent to LEAs that typically perform at or above their state averages on elementary and middle school scores, and their high school graduation rates reflect this pattern. Specifically, four of the five adjacent LEAs have higher graduation rates than their state average. There is variation within them: Most schools are in the top two quartiles of their state distributions, but a small proportion are in the third quartile, and one LEA has nearly one-fifth of its schools in the bottom quartile of graduation rates (Table 5.4).

Table 5.4
High School Graduation Rate Averages and Distribution, by Local Education Agency

Installation	LEA	State Average Rate	District Average Rate	Distribution by District (percentage of schools)			
				Q4	Q3	Q2	Q1
Fort Knox	Hardin County Schools	80.33	86.9	67	0	33	0
Fort Campbell	Christian County School District	80.33	78.1	0	0	100	0
	Clarksville–Montgomery County Schools	81.21	94.4	50	38	13	0
Camp Lejeune	Onslow County Schools	83.14	87.9	14	71	14	0
MCB Quantico	Prince William County Public Schools	88.45	89.8	18	36	27	18

Student Attendance Rate

DDESS have lower attendance rates than adjacent LEAs (Table 5.5), ranging from 93 to 95 percent, with excused absences counting as present. Adjacent LEAs have attendance rates above 95 percent, even with excused absences counting as absent. Because of the difference in how attendance rates are estimated, we expect that a comparable DDESS attendance rate would be much lower than that indicated.

DDESS have flexible attendance policies and work to accommodate absenteeism, particularly so that military-connected children can spend time with their families before the service member deploys or after the service member returns. School administrators have leeway in determining whether an absence is considered excused. DDESS do not enforce a limit on absences. Teacher and counselor interviews indicate that some students are absent for more than 20 days annually. Parents appreciate that schools are willing to work with them instead of automatically retaining students who have accrued a certain number of absences. Still, high levels of absenteeism are challenging for students and teachers alike. Teachers report having to reteach material they taught during a student's absence. By contrast, LEA schools have strict attendance policies and make a student repeat a grade after a certain number of absences.

Teacher Qualifications

The literature indicates that teacher qualification is not a good predictor of student achievements but is useful to consider in any assessment because stakeholders want children to be educated by highly qualified teachers. Teacher credentialing, which is one of the better measures of teacher qualification, is not comparable among DDESS and LEAs because of differences in credentialing requirements. Most states analyzed in this study also do not publish teacher credentialing information. The percentage of teachers who are novices (an indicator that has shown an association with student achievement) also is not available from the states.

Data were available on teacher education level, so we compared education levels of DDESS and LEA teachers (Figure 5.4).[1] At least two-thirds of DDESS teachers have master's degrees (or higher), with more than 80 percent of teachers at West Point and Maxwell AFB having such advanced degrees. Among LEAs, the proportion of teachers holding advanced degrees ranges from 18 to 85 percent. Although this differentiates DDESS and the LEAs, little

[1] LEAs adjacent to six of the 13 installations did not provide data on teacher education levels.

Table 5.5
Attendance Rates for Domestic Dependent Elementary and Secondary Schools and Adjacent Local Educational Agencies

		Attendance Rate (%)		
Installation	**LEA**	**DDESS**	**LEA**	**State**
Maxwell AFB	Montgomery Public Schools	95.4	96.7	96.4
Fort Rucker	Daleville City School District	93.5	95.0	96.4
Fort Benning	Chattahoochee County School District	93.4	97.0	95.5
	Muscogee County School District		95.0	95.5
Fort Stewart	Liberty County School System	93.4	95.5	95.5
Fort Knox	Hardin County Schools	93.5	95.5	95.0
Fort Campbell	Christian County School District	93.2	95.2	95.0
	Clarksville–Montgomery County Schools		95.4	95.0
Fort Bragg	Cumberland County Schools	93.3	94.2	94.7
Camp Lejeune	Onslow County Schools	93.2	95.0	94.7
West Point	Highland Falls–Fort Montgomery Central School District	95.3	93.5	92.0
MCAS Beaufort	Beaufort County School District	94.5	96.5	96.0
Fort Jackson	Richland County School District 2	94.3	97.2	96.0
MCB Quantico	Prince William County Public Schools	93.3	95.0	95.0
NSWC Dahlgren	King George County Schools	95.0	95.0	91.9

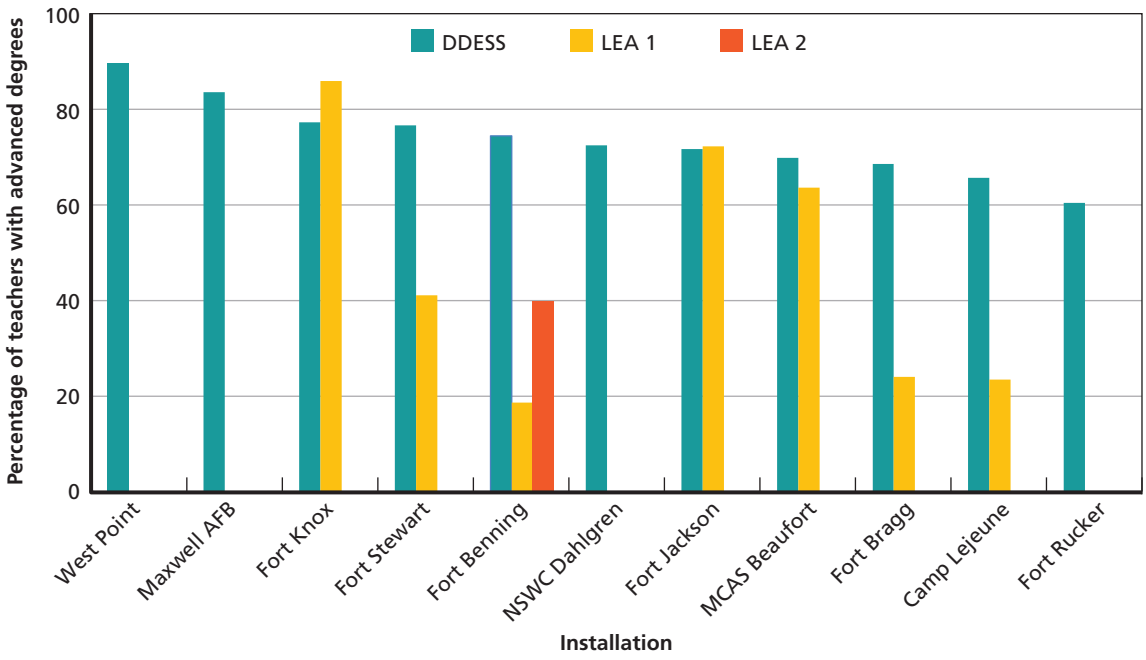
research has shown association between advanced teacher degrees and student outcomes at the elementary and middle school levels. The literature shows that this association is stronger at the high school level.

School Size and Student Population Characteristics

As shown in Table 5.6, installation schools tend to be smaller than those of adjacent LEAs. Consistently with the research findings (Mok and Flynn, 1996; Meier, 1992), DDESS stakeholders indicated that smaller schools have several advantages, including offering a more-cohesive culture, a good climate for learning, and more-individualized instruction. Others indicated that small installation schools are limited in their offerings of some of the courses and extracurricular activities. We discuss these issues in more detail later in this chapter.

Adjacent LEAs have a much higher proportion of low-income students than DDESS except for Fort Bragg, MCB Quantico, Fort Stewart, and Camp Lejeune (Table 5.7). This difference in the socioeconomic background likely explains some of the variation in academic achievement we presented earlier.

Figure 5.4
Percentage of Domestic Dependent Elementary and Secondary Schools and Adjacent Local Educational Agency Teachers with Advanced Degrees



SOURCE: DoDEA and state data.

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Table 5.6
Comparison of School Sizes in Domestic Dependent Elementary and Secondary Schools and Adjacent Local Educational Agencies

		DDESS		LEA		
Installation	School Level	Average Enrollment	Range	Name	Average Enrollment	Range
Maxwell AFB	Elementary and middle	395	N/A	Montgomery Public Schools	545[a]	158–1,001[a]
Fort Rucker	Elementary	363	324–401	Daleville City School District	576	N/A
Fort Benning	Elementary	372	266–514	Chattahoochee County School District	310	N/A
				Muscogee County School District	501	350–812
	Middle	624	N/A	Chattahoochee County School District	176	N/A
				Muscogee County School District	658	425–864

Table 5.6—Continued

		DDESS		LEA		
Installation	**School Level**	**Average Enrollment**	**Range**	**Name**	**Average Enrollment**	**Range**
Fort Stewart	Elementary	661	423–950	Liberty County School System	690	548–876
Fort Knox	Elementary	251	178–376	Hardin County Schools	497	267–708
	Middle	263	n/a	Hardin County Schools	636	541–783
	High	361	n/a	Hardin County Schools	1,379	962–1,776
Fort Campbell	Elementary	543	456–635	Christian County School District	446	285–630
				Clarksville–Montgomery County Schools	682	273–1,010
	Middle	416	410–421	Christian County School District	631	334–798
				Clarksville–Montgomery County Schools	930	758–1,093
	High	671	n/a	Christian County School District	1,093	998–1,188
				Clarksville–Montgomery County Schools	1,113	871–1,429
Fort Bragg	Elementary	443	213–823	Cumberland County Schools	454	120–847
	Middle	503	417–588		691	356–1,215
Camp Lejeune	Elementary	453	215–711	Onslow County Schools	623	333–890
	Middle	518	n/a		702	513–936
	High	446	n/a		941	678–1,088
West Point	Elementary	494	n/a	Highland Falls–Fort Montgomery Central School District	137	n/a
	Middle	260	n/a		367	n/a
MCAS Beaufort	Elementary	230	209–250	Beaufort County School District	540	247–945
	Elementary and middle	358	n/a		602[a]	247–1,004[a]
Fort Jackson	Elementary	318	275–361	Richland County School District 2	616	473–796

Table 5.6—Continued

		DDESS		LEA		
Installation	School Level	Average Enrollment	Range	Name	Average Enrollment	Range
MCB Quantico	Elementary	226	135–278	Prince William County Public Schools	687	400–1,068
	Middle and high	304	n/a		1,568[b]	686–2,862[b]
NSWC Dahlgren	Elementary and middle	109	n/a	King George County Schools	737[a]	636–901[a]

SOURCES: DoDEA and state data systems.

NOTE: The table excludes nontraditional schools (e.g., alternative schools, juvenile detention centers, hospital-based schools) and charter schools. Beaufort County School District has a K–8 charter school (enrollment of 456) that we exclude from the elementary and middle school average. Elementary school averages do not include schools serving any grade above 6th grade. n/a = There is only one school.

[a] Average enrollment for combination elementary and middle schools is calculated across all district elementary and middle schools serving any of grades K through 8, excluding schools serving any grade above 6th.

[b] Average enrollment for combination middle and high schools is calculated across all district middle and high schools.

Table 5.7
Proportion of Students with Free or Reduced-Price Lunch in Domestic Dependent Elementary and Secondary Schools and Adjacent Local Educational Agencies

		LEA	
Installation	Percentage in DDESS Receiving Free or Reduced-Price Lunch	Name	Percentage Receiving Free or Reduced-Price Lunch
Maxwell AFB	23.5	Montgomery Public Schools	73
Fort Rucker	27.9	Daleville City School District	69
Fort Benning	51.9	Chattahoochee County School District	68
		Muscogee County School District	66
Fort Stewart	72.4	Liberty County School System	67
Fort Knox	42.6	Hardin County Schools	52.1
Fort Campbell	57.3	Christian County School District	67.7
		Clarksville–Montgomery County Schools	46.8
Fort Bragg	59.4	Cumberland County Schools	60
Camp Lejeune	40.9	Onslow County Schools	45
West Point	0	Highland Falls–Fort Montgomery Central School District	28
MCAS Beaufort	46.8	Beaufort County School District	n/a
Fort Jackson	35.8	Richland County School District 2	n/a
MCB Quantico	34.5	Prince William County Public Schools	35.9
NSWC Dahlgren	n/a	King George County Schools	27.1

SOURCE: DoDEA and state data systems.

DDESS have a much higher percentage of special-education students than their adjacent LEAs, ranging from 8 to nearly 18 percent (Table 5.8). The reason behind the differing percentages—that is, whether the difference results from larger proportions of DDESS students with special needs in DDESS or differing means of identifying such students in DDESS and LEAs—is not clear. Some state laws might inhibit identification of special-education students. For example, North Carolina law caps state funding on special-education services at 12.5 percent of each district's average daily membership, leaving districts that have larger proportions of students requiring these services on their own financially (see Public Schools of North Carolina, undated). Later in this chapter and in Appendix C, we present stakeholder views on the quality of special-education services that DDESS provide.

Table 5.8
Proportion of Students with Special Needs in Domestic Dependent Elementary and Secondary Schools and Adjacent Local Educational Agencies

		LEA	
Installation	Percentage in DDESS Who Need Special-Education Services	Name	Percentage in LEA Who Need Special-Education Services
Maxwell AFB	7.8	Montgomery Public Schools	9.8[a]
Fort Rucker	14.9	Daleville City School District	10.4[a]
Fort Benning	17.4	Chattahoochee County School District	15.8
		Muscogee County School District	12.3
Fort Stewart	17.1	Liberty County School System	8.8
Fort Knox	17.3	Hardin County Schools	14.9
Fort Campbell	14.7	Christian County School District	11.7
		Clarksville–Montgomery County Schools	12.4[a]
Fort Bragg	16.7	Cumberland County Schools	13.5[a]
Camp Lejeune	15.5	Onslow County Schools	11.6[a]
West Point	13.7	Highland Falls–Fort Montgomery Central School District	10.6
MCAS Beaufort	13.6	Beaufort County School District	9.6
Fort Jackson	17.5	Richland County School District 2	11.5
MCB Quantico	12.0	Prince William County Public Schools	11.7
NSWC Dahlgren	7.3	King George County Schools	16.2

SOURCE: DoDEA and state data systems.

[a] Data from NCES for SY 2011–2012 because the state and district did not make more-recent data available.

Teacher–Student Ratio

We obtained teacher–student ratio data from adjacent LEAs and DDESS. We analyzed the data and determined that they are not comparable between states and DDESS because DDESS and various states use different formulas to calculate teacher–student ratios.

Facilities

We address the condition of DDESS facilities in Chapter Four. Table D.12 in Appendix D lists the construction plans for each installation.

Examining School Processes

Almost all school processes presented in Table 5.1 require qualitative methods to measure. The availability of prekindergarten programs free of charge for all children on all installations, which DDESS stakeholders view as a strength of their system, is the only indicator that we could compare with adjacent LEAs. As Table 5.9 shows, in some LEAs, prekindergarten programs are available only for students with disabilities or students who meet program-specific income requirements.

For the remaining school process indicators, we present findings from interviews with DDESS stakeholders regarding their judgment on the quality of the programs and services

Table 5.9
Availability of Prekindergarten Programs at Adjacent Local Educational Agencies, SY 2012–2013

Installation	LEA	Pre-K Program
Maxwell AFB	Montgomery Public Schools	Yes
Fort Rucker	Daleville City School District	No
Fort Benning	Chattahoochee County School District	Yes
	Muscogee County School District	Yes
Fort Stewart	Liberty County School System	Yes
Fort Knox	Hardin County Schools	Low income, special education
Fort Campbell	Christian County School District	Low income, special education
	Clarksville–Montgomery County Schools	Low income, special education, English-language learner
Fort Bragg	Cumberland County Schools	Low income, special education
Camp Lejeune	Onslow County Schools	Low income, special needs
West Point	Highland Falls–Fort Montgomery Central School District	Special education
MCAS Beaufort	Beaufort County School District	Special education, at risk
Fort Jackson	Richland County School District 2	Low income with greatest need
MCB Quantico	Prince William County Public Schools	Low income, special education
NSWC Dahlgren	King George County Schools	Low income, special education

SOURCES: LEA and public school websites.

provided to their students. As indicated earlier in this chapter, we base the findings on stakeholders' experiences in their current DDESS. We could not interview stakeholders in the LEAs (with the exception of LEA superintendents), such as off-base military parents who send their children to LEA schools. As a result, this section does not compare the quality of services in both types of education systems.

The concern most repeated by principals, teachers, parents, DDESS superintendents, and commanders is whether their students and children would receive the same quality education from the adjacent LEAs that they do now. At every site visit, such groups noted that their schools provide high-quality education, although they also identified challenges. In this section, we provide a brief summary of DDESS stakeholders' perceptions on the quality of academic programs, support services, special-education programs, and extracurricular activities, as well as parent engagement. Appendix C contains more-detailed information.

DDESS stakeholders were pleased with the rigor of their academic programs in science, technology, engineering, and mathematics (STEM) education and with DoDEA's efforts in implementing programs that develop students' 21st-century skills (e.g., critical thinking, collaboration, and leadership). Parent groups at a few installations indicated the need for more advanced math and college-preparation classes offered on site at the middle and high schools. Another major strength of the DDESS system that almost all stakeholders reported is the consistency in curriculum across all schools and installations. DDESS have oriented their support services to deal with special aspects of military life. Schools collaborate with the installation commands to maximize and take advantage of resources available in the military community in order to support students coping with deployment, grief, and stress and to help them integrate within the school community. Supports include Military Family Life Consultants, School Liaison Officers, and mentoring and buddy programs. These supports are also available for military-connected children who attend non-DDESS.

DDESS stakeholders indicated that DDESS provide classes and academic support so students receive individual attention in a timely manner that accounts for the transiency of military life. Respondents from a few installations indicated that they need additional support staff, as well as guidance counselors, to help provide services.

We heard strong support for special-education programs offered at installation hospitals and DDESS for children starting at 3 years of age. Special-education counselors and teachers indicated that their identification and referral process for special-education students is similar to that of the LEAs but that they expedite the process and involve parents in the meetings. DDESS stakeholders perceived that LEAs underidentify students with special needs, attributing that underidentification to lack of state resources.

The DDESS special-education program targets students with varying disabilities. The schools and the command work together, through the Exceptional Family Member program, to provide the appropriate services for the special-need child and family.

In additional to support services, DDESS provide academic and nonacademic activities outside school hours, but available opportunities vary by installation.

Finally, parents indicated that DDESS have open-door policies for parents, communicate with them regularly, and provide them with opportunities to be involved (e.g., volunteer on field trips and in classrooms, attend school events, and eat lunch with their children on campus). Nevertheless, interviews found some variation in administrators' willingness to listen to parents' concerns.

Schools also provide parents with opportunities to participate in their governance structure through parent–teacher organizations or school boards. Although these boards are only advisory, parents believe that their participation allows schools to hear and address their concerns.

In the rest of this chapter, we forecast the quality of education for DDESS students under the remaining options: contract with LEAs, coterminous districts, and charter schools. We end the chapter by summarizing the quality of various options for educating DDESS students.

Contract with Local Educational Agencies

The quality of education for DDESS students if DoDEA were to contract with adjacent LEAs would likely be similar to what the students would receive by transferring to the LEAs. LEAs in the lowest quartiles of their states would educate DDESS students. DDESS students might outperform their peers in the LEAs because of their advantaged SESs but still might experience lower achievement than they do currently if they were to transfer to these low-performing LEAs. DoD might help improve the quality of education in these contracted arrangements by specifying improvements, such as providing resources to finance areas needing improvement. Because the contract schools might educate only on-base residents, the community would remain together and the LEA might be better able to target programs specifically to military-connected children.

Coterminous Districts

We do not have specific data that allow us to forecast the quality of coterminous districts. How well DDESS students would perform in coterminous districts depends on such elements as (1) qualification of teachers, (2) policies regarding attendance and student identification, (3) availability and quality of academic and support programs, (4) support of special-education students, (5) facilities and small class sizes or teacher–student ratios, and (6) parent engagement. From the point of view of many parents in our study, coterminous districts hold the advantage of keeping the population of on-base students together and in their communities. As a result, districts could more easily focus on and address issues that are specific to military-connected children, which might result in some educational advantages.

Charter Schools

The literature abounds with studies on the performance of charter schools. These studies vary in quality and, as a result, have led to contradictory findings. A meta-analysis of available research suggests that charter schools have a range of performance similar to that of public schools: Some schools perform high, some schools perform low, and most perform in the middle (Di Carlo, undated). Charter schools' effects on test score gains vary by location, school and student characteristics, and other characteristics (Di Carlo, undated; Zimmer et al., 2009). Differences in performance between charter and public schools tend to be very small. A recent study conducted by the Center for Research on Education Outcomes compared the perfor-

mance of charter schools in 27 states, five of which are in our study (Georgia, Massachusetts, New York, North Carolina, and Tennessee), with that of public schools. The study found that, in each of the five states in our study, the charter schools outperformed the public schools in reading, but math performance was mixed. Charter schools in Georgia and North Carolina performed lower in math than public schools in their states did. But the magnitude of the average differences in academic performance between charter schools and public schools reported by the study across the 27 states is so small (effect sizes between 0.01 and 0.10 standard deviation [SD])[2] that the differences have little practical implication. The study also found that different student groups, including those with special needs, do not perform differently from those in public schools.

There is tentative evidence suggesting that higher-performing charter schools share certain key features, especially private donations, large expansions of school time, tutoring programs, and strong discipline policies (DiCarlo, undated).

Summary of School Quality

In this section, we return to the question regarding the education quality of various alternatives for educating military-connected children. Because DDESS and LEAs use different assessments and collect different data on many indicators of interest, we were limited in how we could compare both systems directly. On some indicators, such as school performance, we were able to compare the quality of the alternatives indirectly to each other. This comparison provides information on how DDESS students might perform under various alternatives.

We find that DDESS perform above the national median on the nationally normed TerraNova and that DoDEA schools (which include DDESS) rank very high nationwide on NAEP. DDESS, which constitute about one-third of student enrollment in the DoDEA system (a total of approximately 76,000 students), perform comparably to other DoDEA schools (some above and some below the DoDEA median). Most states on which the installations reside rank very low on NAEP nationwide, with the LEAs to which DDESS students would transfer ranking in the bottom two quartiles in these states. This indicates that the adjacent LEAs are low-performing, and this raises a concern about their quality. DDESS students' academic performance might suffer if they receive their education from the LEAs, whether DoD transfers the responsibility for educating military-connected children to the LEAs or contracts with them. Data on quality of the coterminous district and charter school options are very limited. It might be that DDESS students perform well under the coterminous district and charter school options if the appropriate funding, school inputs, and processes are in place. The coterminous district and contracted options have the advantage of maintaining the cohesiveness of the school community because they would only serve military-connected children, so designing programs and supports that meet their needs would be easier. This could have educational advantages.

[2] SD is a measure of variation. Statistical studies often express differences between treatment and control groups in SD units, known as effect sizes. An influential paper by Jacob Cohen in 1969 proposed categorizing effect sizes as small (at least 0.2), medium (at least 0.5), or large (at least 0.8). Cohen reasoned that a 0.2 SD difference is usually too small to be detectable to the naked eye.

Regarding academic programs, DDESS seem to have similar programmatic emphasis to those of LEAs (e.g., STEM), although we did not assess the quality of these programs for either system. DDESS stakeholders raised some concerns about the availability of adequate college-preparation and AP classes on site. DDESS middle and high schools tend to be smaller, possibly resulting in smaller number of on-site college-preparation and AP classes.

DDESS stakeholders view the support services that DDESS provide as designed to address the unique needs of their students. Many DDESS students have emotional and psychological needs because of their transiency and their parents' deployments. Such needs differ from those of their peers in public schools. DDESS stakeholders indicated that DDESS pool their resources with those of the installation to provide the needed counseling to students and their families. Similarly, stakeholders reported that DDESS and installation commands work together to ensure that their special-education student population, which is much higher than the population in adjacent LEAs, is provided with the needed assessments and interventions. DDESS staff viewed their identification and referral process, although similar to that of the LEAs, to be swifter to catch students before they transition again to another school. It is not clear whether the adjacent LEAs would be equally attentive to the needs of military-connected children or have the resources to provide the needed support for special education because the study did not collect that information.

CHAPTER SIX

Evaluation of Cost and Finance

Introduction

The cost of providing education under each option is obviously an essential consideration in any decision. In this chapter, we estimate the costs of the current DDESS and special arrangement schools (the status quo), as well as costs for each of the other alternatives. We first examine school facilities and the potential capital and sustainment costs for construction or renovation that could apply to each option. We then estimate the operating costs of each option, including staff costs, bus transportation, facility operating costs, and other education program costs. Finally, we consider transition costs associated with each option, such as costs that LEAs or charter operators incur to assume responsibility for education and DoD costs associated with a transition of the DDESS workforce.

Depending on the option, a combination of federal, state, and local sources could bear these costs, so we consider the financial implications of the options for each level of government.

Current Operating Costs

To accurately compare options, we must measure costs on a consistent basis. We focus largely on current expenditures, which include all operating expenses but do not include capital spending. According to NCES, current expenditure includes the following types of expenditure: instruction, student support, instructional staff services, operation and maintenance, administration, transportation, and food services (Kena et al., 2014).

DoDEA provided expenditure data for recent fiscal years. We used the latest complete fiscal year, FY13, in our current expenditure estimates. DoDEA's current expenditures include the same categories of expenses as the NCES definition does.

For the LEAs, we obtained data on current average per-pupil expenditures (PPEs) from state departments of education, where available, and from the LEAs or U.S. Department of Education in other cases. Of the 18 LEAs, 13 had data on current PPEs for SY 2012–2013. For two LEAs, Lincoln Public Schools and Bedford Public Schools, the most-recent data are for SY 2011–2012. For three LEAs, Montgomery Public Schools, Daleville City School District, and King George County Schools, the most-recent data are for SY 2010–2011. Because school budgets and expenditures have been flat or decreasing, on average, since the Great Recession, we treat the cost figures from these earlier years as equivalent to SY 2012–2013 (or FY13) dollars.

Thus, for both DoDEA and the LEAs, we present estimates in FY13 dollars.

Facility Capital and Sustainment Costs

DoDEA currently has plans for $788 million in MILCON between FY14 and FY19 to replace or renovate all schools below the established quality level of Q3 or Q4, except for Dahlgren School. Table D.12 in Appendix D shows a list of MILCON projects and associated cost estimates by installation. Because the representatives from the LEAs and charter operators with whom we spoke all indicated that they would want to use the current facilities, we think it likely that MILCON costs for replacement or renovation would be similar across all the options. Because some LEAs might prefer not to use particular schools in some cases, DoD should develop a specific plan for necessary facility investments with each operator. Such a process might identify projects that could be eliminated or replaced by less costly approaches, such as adding space to an LEA's existing schools.

Besides major replacement and renovation projects, DoDEA conducts regular activities to sustain and enhance the quality of its facilities. These FSRM activities are paid from operations and maintenance funding rather than capital (MILCON) funding. We include these FSRM costs in our estimates for current expenditures for options in which DoD retains ownership of school facilities. For options in which LEAs take ownership of the schools, we assume that the LEA's existing data for current PPEs, which are required to include facility maintenance, represent such costs.

The LEAs that own and operate the approximately 160 public schools on other military installations often have difficulty raising capital funds to renovate or replace these schools because the local tax base is insufficient to support bond measures and states might not offer capital funding. If LEAs acquire the current DDESS and special arrangement schools, they could seek these federal funds for renovation or replacement. If they acquire the schools in Q1 or Q2 condition, it seems likely that any such requests would occur at least ten to 20 years in the future, so we do not consider this potential future demand explicitly in the cost analyses.

Force Realignment

The services have begun some realignment of forces. We asked installation commanders and DoDEA officials for information about planned or potential realignments that could affect the student population on the study installations. Fort Knox is undergoing such realignment, with a reduction in military personnel assigned to the base. At the end of SY 2013–2014, DoDEA closed two DDESS on Fort Knox, reflecting reduced student population there. The best available information indicates that the fall 2014 enrollment of 1,501 is a good estimate for the years to come (compared with 2,180 enrolled in the fall of 2013). We therefore adjust the cost estimate for all options for Fort Knox to reflect this smaller student population.

We did not receive any information on other planned or proposed force realignments that we could use to adjust any other installation estimates, so we have not made any other such adjustments.

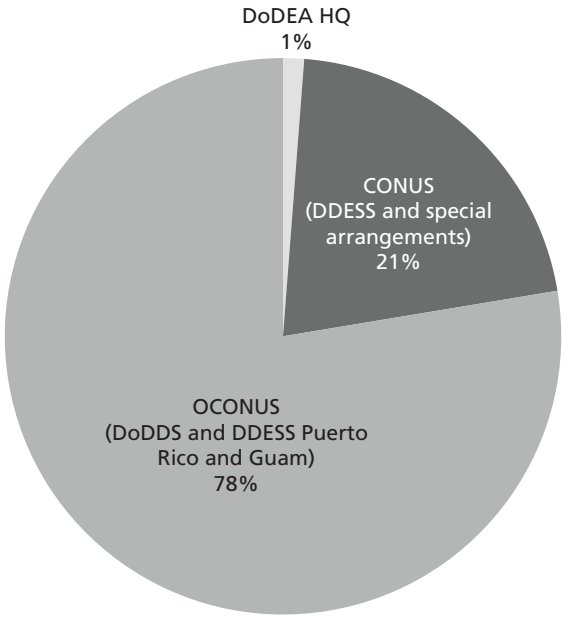
Option 1: Domestic Dependent Elementary and Secondary Schools and Special Arrangement Costs

The DoDEA current expenditure budget for FY13 was about $1.8 billion. As Figure 6.1 shows, our analysis indicates that the CONUS portion of current expenditures is 21 percent, including DDESS and the current special arrangements. The portion for DoDDS and DDESS in Puerto Rico and Guam—that is, outside CONUS (OCONUS)—is 78 percent. DoDEA HQ central management and administration account for about 1 percent of total current expenditures.

Figure 6.2 shows a simplified diagram of DoDEA's structure. To estimate the costs, we had to allocate DoDEA costs to various levels of the structure: schools and installations, districts, the DoDEA Americas Area Service Center, and DoDEA HQ. We needed to do this allocation for two reasons. First, we wanted to estimate the cost of supporting schools at each installation. Second, the districts and DoDEA Americas Area Service Center support some OCONUS schools—specifically, schools in Puerto Rico, Guam, and Cuba. We allocated district costs proportionally across all students served in the district and DoDEA Americas Area Service Center costs across all students served by that service center. We applied these per-student costs to the installation.

DoDEA supplied expenditure figures for FY13, the most recent complete year, with expenditures listed by school, installation, district, and the DoDEA Americas Area Service Center. The DoDEA Americas Area Service Center performs most administrative and management functions for DDESS. This service center serves CONUS DDESS, as well as Guam and Puerto Rico, so we prorated these costs on a per-student basis to estimate the costs of the service center associated with the CONUS students.

Figure 6.1
Fiscal Year 2013 Department of Defense Education Activity Current Expenditure Budget



SOURCE: DoDEA expenditure data.

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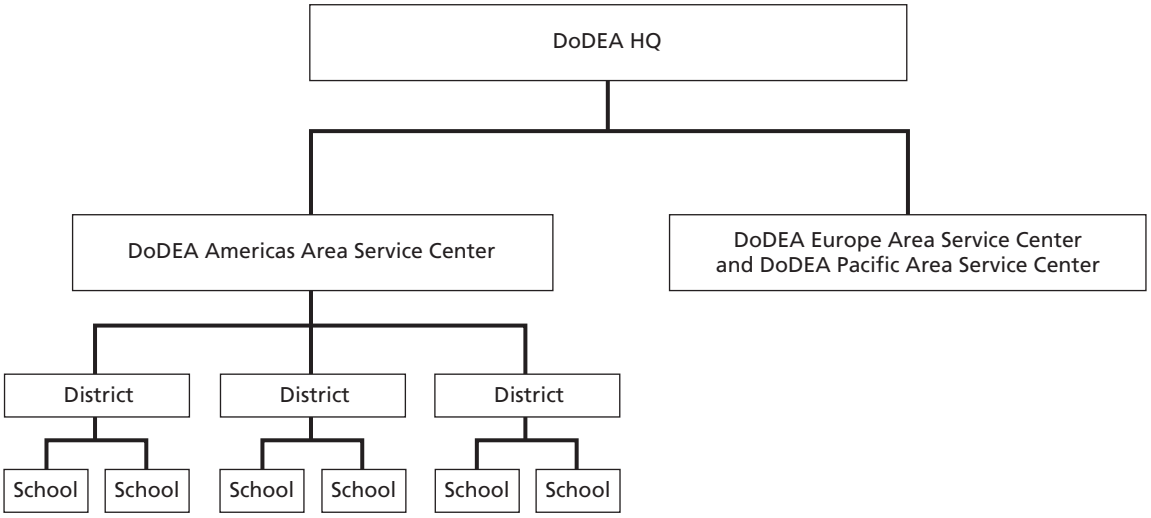
Figure 6.2
Department of Defense Education Activity Structure



RAND *RR855-6.2*

DoDEA HQ serves two distinct functions. First, it provides overall agency management and administration, similar to a state education agency. Second, it purchases certain materials and services globally for all DoDEA schools. These centrally purchased items include curriculum materials, Internet access, information-technology contractor support, and teacher recruitment expenses. We worked with DoDEA staff to allocate these centrally paid expenses to CONUS DDESS.

The share of overall agency management and administration costs is more difficult to allocate. We worked with DoDEA staff to estimate the portion of the 117 DoDEA HQ staff positions that could become unnecessary if CONUS DDESS were completely closed or transferred. Although the CONUS DDESS students represent about one-third of DoDEA's total students, many DoDEA HQ functions have fixed costs that do not scale with the number of students served. Nonetheless, such a major reduction in students and schools would presumably warrant at least some reductions in staff. Informed by our discussions of functions with DoDEA staff, we assume that expendable materials and travel would decrease in proportion to the 29-percent student reduction with transfer of CONUS DDESS students and that staff positions would decrease by 10 percent. Although these assumptions are necessarily somewhat arbitrary, we think that they are reasonable, and, in any case, even if all DoDEA HQ costs decreased in proportion to the 29-percent student reduction, it would increase our total cost estimates by $3.9 million, or slightly less than 1 percent. Just as with the DoDEA Americas Area Service Center costs, we allocated these DoDEA HQ costs on a per-student basis.

We made one adjustment to the actual FY13 costs. Because of the federal budget sequester during FY13, DoDEA and many other DoD agencies greatly reduced FSRM expenditures during the year. FSRM for DDESS and special arrangement schools in FY13 amounted to $13 million, compared with an annual average of about $45 million in the upcoming FY15–FY19 budget cycle (the Future Years Defense Program). We therefore add the annual difference between these amounts ($32 million) to the FY13 totals.

Finally, we added the costs of the current special arrangement schools to arrive at a grand total, which is reported in Table 6.1.

Impact Aid Programs

Before estimating the costs of the other options, we briefly review federal Impact Aid programs. Because municipalities cannot levy property taxes on federal property where families live or work, the Department of Education Impact Aid statutes (Pub. L. 81-815; Pub. L. 81-874), first passed in 1950, provide financial assistance to LEAs that educate military-connected and other federally connected children. The funds are deposited into a general fund of the recipient LEAs, which can use them for any purpose. Since the early 1990s, Congress has provided a smaller supplement administered by DoD to LEAs with large concentrations of military-connected children.

The total federal Impact Aid budget in FY11 and FY12 was nearly $1.3 billion per year, including amounts payable on behalf of children residing on military bases, as well as other federally connected children (U.S. Department of Education, 2013). The largest Impact Aid program is the Department of Education Basic Support program. The Basic Support Payments (BSPs) are distributed to school districts through a formula based on the number of federally connected children, with higher rates for families who live on federal property than for those who work on federal property but live in the community.

Because recent Impact Aid appropriations supply only about half the funding required to pay all the full Basic Support amounts, the law provides a mechanism to distribute Impact Aid. LEAs that the law defines as "heavily impacted" receive their full Basic Support amount, but other LEAs receive only a portion. The portion is geared to the percentage of the LEA's students who are federally connected. Therefore, school districts receive widely varying amounts per federally connected student.

Table 6.1
Expenditure Allocations for Domestic Dependent Elementary and Secondary Schools and Special Arrangements, in Millions of Fiscal Year 2013 Dollars

Level	Allocation
Installation schools	352.8
District	15.6
DDESS share of DoDEA Americas Area Service Center costs	25.9
DDESS share of DoDEA HQ costs	2.2
DDESS share of centrally paid expenses	19.1
Special arrangements	24.0
Total	439.6
Fort Knox enrollment reduction	–12.4
Adjusted total	427.1

SOURCE: DoDEA expenditure data.

The options we consider could affect three other Impact Aid programs. DoD administers a supplemental program for LEAs with large concentrations of military-connected children (more than 19.5 percent of enrollment), and both DoD and the Department of Education provide additional funding for federally connected children with disabilities. Appendix D offers a more-complete description of these programs, along with the key assumptions we made in simulating the allocations of Impact Aid under each of the study options.

Option 2: Transfer to a Local Educational Agency

Impact Aid Simulation

Using data from the Department of Education for the most-recent completed year of Impact Aid payments (FY11), we simulated the effect of transferring DDESS and special arrangement students to the 18 LEAs that would receive them. For each affected district, we adjusted its federally connected membership by the number of new students the district would receive, assuming that the current number of DDESS students would transfer to the district zoned for each base. We then reallocated each Impact Aid program according to its funding rules. We simulated the change in payments under two scenarios. In the first scenario, Congress appropriates new funding so that other districts do not experience reductions to pay for the new students. In the second scenario, Congress keeps appropriations at their current level, so other districts in the country experience reductions in their payments to fund the new amounts that the 18 affected districts receive. We focus on the first scenario here, with details of both scenarios in Appendix D.

As shown in Table 6.2, under the Department of Education Basic Support program, the 18 affected LEAs currently receive $26.2 million in payments. Assuming that Congress does not want to reduce payments to other districts when transferring DDESS students to the 18 affected LEAs, we find that Congress would need to increase appropriations by $193.0 million to provide Basic Support to these 18 LEAs. For this program, we separate the nonaffected districts into heavily impacted and non–heavily impacted because, under the law, heavily impacted districts always receive their full funding. Any reductions must come from the non–heavily impacted districts, although, under the first scenario, no other districts experience reductions. In Appendix D, we show how the situation varies under the second scenario, in which appropriations remain constant.

Table 6.2
Change in Department of Education Basic Support Payments, in Millions of Fiscal Year 2013 Dollars

		Payment Amount		
Effect	Number of LEAs	Current	Projected	Change
Affected	18	26.2	219.2	+193.0
Nonaffected heavily impacted	23	233.8	233.8	0
Nonaffected non–heavily impacted	1,272	875.7	875.7	0
Total	1,313	1,135.7	1,328.7	193.0

SOURCE: U.S. Department of Education Impact Aid data.

As shown in Table 6.3, under the Department of Education program for children with disabilities, the 18 affected LEAs currently receive $2.1 million in payments. The transfer of DDESS and special arrangement students would result in additional payments of $3.3 million, for a total of $5.4 million. The other 1,295 nonaffected districts will continue to receive $46.4 million in payments under the Department of Education program for children with disabilities.

Of the 18 affected LEAs, 12 would satisfy the 19.5-percent eligibility criterion to receive payments under the DoD supplemental program. These LEAs currently receive a total of $3.2 million in payments under this program (see Table 6.4). With the additional DDESS and special arrangement students, their supplemental payments would increase by a projected $7.4 million, from $3.2 million to $10.6 million. To keep supplemental program payments at the same levels for the other 108 districts currently receiving them, Congress would therefore need to increase appropriations by $7.4 million.

Under the Impact Aid Children with Severe Disabilities Program, the 18 LEAs that would receive DDESS students currently receive $36,000 in payments (see Table 6.5). Assuming that all 18 districts would receive such assistance after the transfer of DDESS and special arrangement students, we estimate that this subsidy would increase by $1.1 million, requiring Congress to increase the total of such assistance to $5.1 million.

Considering all four Impact Aid programs, we find that the 18 districts that would receive DDESS and special arrangement students currently receive $31.6 million, with these programs also paying $1.2 billion to other districts. Under the assumption that Congress appropriates

Table 6.3
Change in Department of Education Payments for the Program for Children with Disabilities, in Millions of Fiscal Year 2013 Dollars

		Payment Amount		
Effect	Number of LEAs	Current	Projected	Change
Affected	18	2.1	5.4	+3.3
Nonaffected	1,295	46.4	46.4	0
Total	1,313	48.5	51.8	3.3

SOURCE: U.S. Department of Education Impact Aid data.

Table 6.4
Change in Department of Defense Supplemental Payments, in Millions of Fiscal Year 2013 Dollars

		Payment Amount		
Effect	Number of LEAs	Current	Projected	Change
Affected	12	3.2	10.6	+7.4
Nonaffected	108	36.7	36.7	0
Total	120	40.0	47.4	7.4

SOURCE: DoDEA Impact Aid data.

Table 6.5
Change in Department of Defense Children with Severe Disabilities Program Payments, in Millions of Fiscal Year 2013 Dollars

		Payment Amount		
Effect	Number of LEAs	Current	Projected	Change
Affected	18	0.04	1.1	+1.1
Nonaffected	46	4.0	4.0	0
Total	64	4.0	5.1	1.1

SOURCE: DoDEA Impact Aid data.

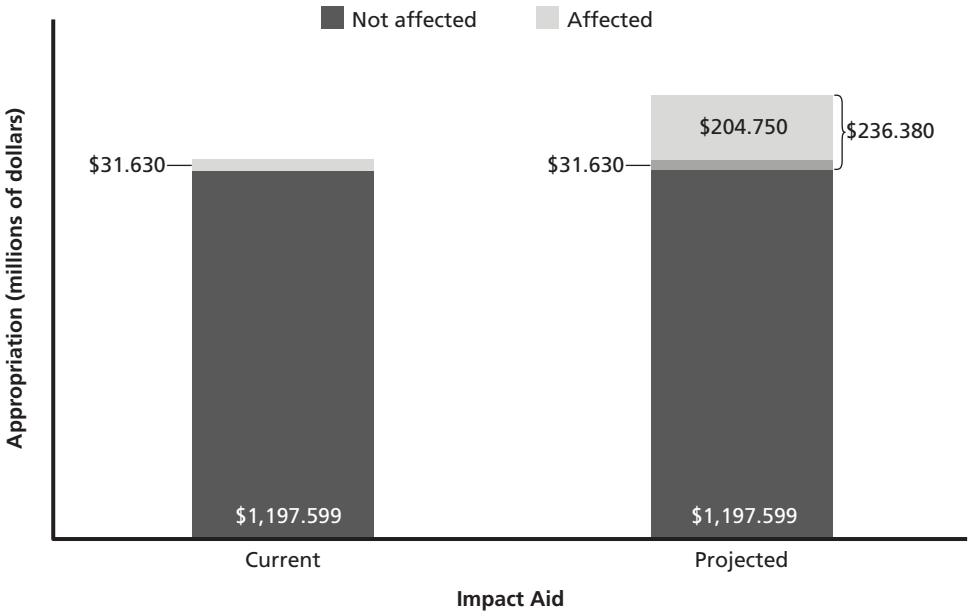
additional funding, the transfer of DDESS and special arrangement students would result in additional appropriations of $205 million, as shown in Figure 6.3.

In Appendix D, we examine what happens if Congress does not increase Impact Aid appropriations. In this case, all other LEAs eligible for Impact Aid would experience a reduction of $199 million to accommodate the 18 LEAs that would receive DDESS students, as shown in Figure 6.4.

Federal, State, and Local Shares

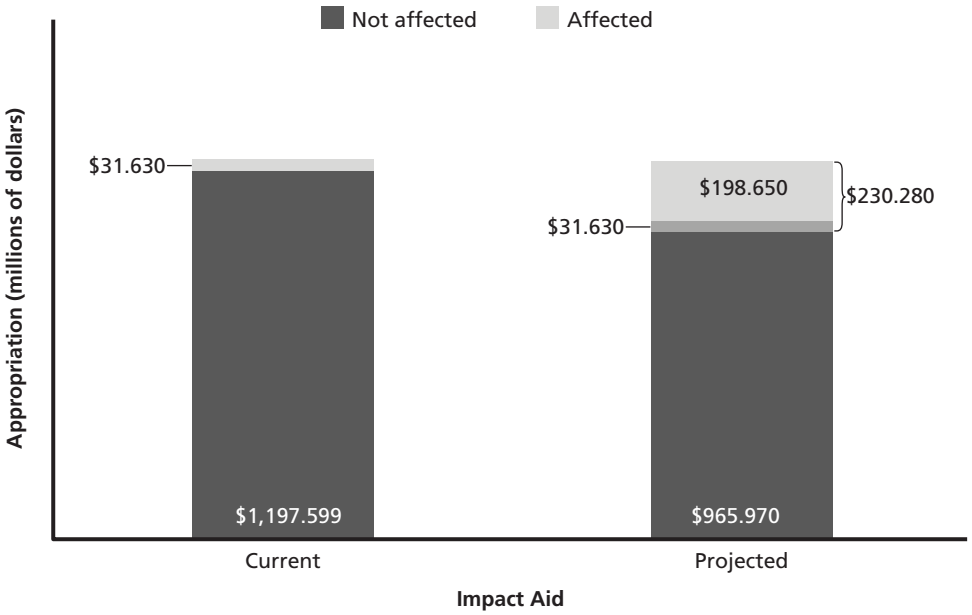
Because the Basic Support program is the largest of the four programs, the difference in categorization of heavily impacted and non–heavily impacted districts resulted in wide differences in Impact Aid allocations across the 18 districts that would receive DDESS students. Twelve of these LEAs would receive Impact Aid allocations of less than 40 percent of their current

Figure 6.3
Effect of Transfer on Total Impact Aid, with Appropriation Increase



SOURCE: U.S. Department of Education and DoDEA Impact Aid data.
RAND *RR855–6.3*

Figure 6.4
Effect of Transfer on Total Impact Aid, with Constant Appropriations



SOURCES: U.S. Department of Education and DoDEA Impact Aid data.
RAND *RR855–6.4*

PPEs, while the other six, which are already or would become heavily impacted districts, would receive 96 to 145 percent of their PPEs in new Impact Aid funding. These percentages are high because their heavily impacted payment rates apply not only to the new students they gain but to all federally connected students they already serve.

To estimate total costs and the shares by different levels of government, we assume that the current PPE for each LEA is covered by 45-percent local funding, 45-percent state funding, and 10-percent federal funding (not including Impact Aid payments), which represents a rough average allocation of funding.[1] The other federal funding includes many federal programs that provide funding to LEAs, most notably funding from Title I of the Elementary and Secondary Education Act of 1965 (Pub. L. 89-10) and the Individuals with Disabilities Education Act (IDEA) (Pub. L. 101-476, 1990).

Using these percentages, we estimated the amount of funding that each LEA would receive from state and federal sources (including Impact Aid and other federal programs). In six LEAs, these funds approximate or exceed the LEA's current average PPEs, so we assume that there is no uncovered gap. The other 12 LEAs receiving DDESS and special arrangement students will require $30.1 million overall in additional local funding to cover their current average PPEs. Table 6.6 summarizes the cost and funding for this option.

[1] We also modeled these shares using the actual average percentages taken from Cornman, Young, and Herrell, 2013, for each state and got similar results.

Table 6.6
Option 2: Transfer to a Local Educational Agency—Cost and Funding Summary, in Millions of Fiscal Year 2013 Dollars

Source	Projected Amount
Federal, Impact Aid	204.8
Federal, DoD	0.0
Federal, other	25.7
State	115.6
Local	30.1
Total	376.2

Option 3: Contracting with Local Educational Agencies

We modeled the option of contracting with LEAs by following the current special arrangement provisions. Like it does for the existing special arrangements, DoD would retain responsibility for facilities. As a result, DoDEA would incur annual FSRM costs of approximately $45 million.

Under this option, the federal government would pay all costs of education and transportation by contract to the LEAs. The federal government would not provide Impact Aid for these students.

The current special arrangement contract amounts range from approximately equal to the LEA's average PPEs to 47 percent above this amount. Given this experience, we estimated that the federal government could contract with LEAs for an overall amount ranging from the LEAs' average PPEs to 20 percent above this amount. Across all installations, this would total between $256.6 million and $303.1 million per year. Adding the $45.0 million per year in FSRM would yield an annual total ranging from $301.6 million to $348.1 million per year.

Option 4: Coterminous Districts

The coterminous district alternative establishes new LEAs under state law covering the full installation area. Although we judge that coterminous districts are not feasible for all installations, we calculated costs for all to present summaries that are comparable across options.

Because the coterminous districts would not educate high school students at Hanscom AFB and West Point whom special arrangements currently serve, we included the current costs of these special arrangements in the total for this option to maintain a comparable basis among all the options.

Impact Aid Simulation

Each newly created coterminous district would qualify as a heavily impacted district under the Impact Aid Basic Support program. This would result in total Impact Aid appropria-

tions increasing by $227.1 million, assuming that such aid for other districts currently receiving it remains unchanged. The coterminous districts would receive $203.9 million in BSPs, $3.8 million in payments for the Department of Education program for children with disabilities, $9.1 million in DoD supplemental payments, and $0.8 million in DoD Children with Severe Disabilities payments. Table 6.7 shows these data.

Federal, State, and Local Shares

We assume that per-student costs in new coterminous districts would be at least as much as those in nearby LEAs that would educate the students under option 2. The coterminous districts would then receive 85 to 140 percent of their comparable average PPEs from Impact Aid. States would supply another 45 percent of the comparable average PPEs, and other federal programs would supply 10 percent. Thus, all the coterminous districts would receive at least 100 percent of their comparable average PPEs. They would have no local sources of funding.

Very small LEAs are likely to be inefficient. Andrews, Duncombe, and Yinger, 2002, in reviewing cost studies on districts of various sizes, concludes that districts with fewer than 2,000 students could incur substantial extra costs. At least nine of the possible coterminous LEAs would fall well below this size. Given what we learned during our conversations with superintendents, we estimate the additional infrastructure costs for a coterminous district LEA to be about $500,000, sufficient to pay salary and benefits for a superintendent and core administrative staff.

Because Impact Aid plus state and other federal sources cover well over 100 percent of the comparable per-pupil expenditures, we find that there would generally be sufficient funding for these districts to cover the additional fixed costs required by their small scale.

To make the totals comparable across options, we have to account for West Point and Hanscom AFB high school students attending community high schools under special arrangements. We therefore include the $5.0 million of these contracts in the total for this option so that all options cover the same set of students. Table 6.8 summarizes the cost and funding for this option.

Table 6.7
Option 4: Coterminous Districts—Impact Aid Projection, in Millions of Fiscal Year 2013 Dollars

Impact Aid Program	Projected Amount
Basic Support	203.9
Children with disabilities	3.8
Supplemental	9.1
Children with Severe Disabilities	0.8
Total	217.5

NOTE: Because of rounding, amounts do not sum precisely.

Table 6.8
Option 4: Coterminous Districts—Cost and Funding Summary, in Millions of Fiscal Year 2013 Dollars

Source	Projected
Federal, Impact Aid	231.7
Federal, DoD (special arrangements)	5.0
Federal, other	23.8
State	107.2
Total	367.7

Option 5: Individual Charter Schools

As described in Chapter Four, charter schools are not a feasible option in all locations. Where they are feasible, state policies vary considerably in how they are funded. As a result, there are too many uncertainties for us to estimate the costs of operating individual charter schools, as well as how those costs would be divided among federal, state, and local sources. Department of Education data (Cornman, Keaton, and Glander, 2013, Table C-1) and our interviews with four larger charter operators suggest that charter operators typically have per-pupil expenditures that are similar to or lower than those for LEAs. We therefore assume that the costs of option 5 are likely to be comparable to those of option 3, while acknowledging the considerable uncertainty in using option 3 estimates to estimate the cost for this option.

Option 6: Contract with an Education Management Organization

Contracting with an EMO is similar to option 3, except that the provider would be a private organization rather than a public LEA. As mentioned above, charter operators typically have per-pupil expenditures that are similar to or lower than those of LEAs, so we use the cost estimates for option 3 to estimate the cost of this option as well.

Transition Costs

Any changes from the status quo are likely to entail costs to transition from the present to future arrangements. Some of these costs are likely to be constant or similar for options 2 through 6, including severance costs for DDESS employees and facility lease-termination costs. Other costs, such as transitional support for LEAs, will depend on the option chosen. We discuss and estimate each of these costs here.

Severance for Domestic Dependent Elementary and Secondary Schools Employees

A federal employee is entitled to severance pay or other accommodations if the employee's position is eliminated. Severance pay is not available to an employee who is eligible for retirement. For other employees, severance pay is calculated at a rate of one week of salary per year up to

ten years of service and two weeks per year beyond that, increased by a multiplier of 10 percent per year of age above 40. The maximum severance payment that any employee can receive is 52 weeks of salary.

Using the current distribution of DDESS employee years of service, age, and salary, and assuming that a decision is made one school year prior to the termination date, DoDEA estimates that the DDESS workforce would be entitled to $45 million in severance payments.

The actual amount paid could well be less for several reasons. An employee whose job is eliminated has the right to transfer to an open position for which that employee is qualified and can receive permanent-change-of-station (PCS) or relocation costs even when PCS costs are not normally authorized for those positions. For instance, a DDESS teacher could transfer to DoDDS overseas if positions are available. This option might be especially attractive to teachers who are close to retirement but not yet eligible. Because those teachers would be eligible for high severance payments, their PCS costs would likely be similar to or less than severance costs for them. In addition, once the decision to terminate some or all DDESS positions is made, employees will likely begin seeking employment elsewhere and might depart voluntarily rather than waiting until the termination date to collect severance pay. If a decision is made more than one year in advance, severance costs would likely go down because the longer notice period would permit more employees to leave voluntarily.

DoD would also have to pay each separated employee for unused annual leave. Although these payments would represent a cash cost, they are converting an existing DoD liability into cash. Hence, we do not consider them specifically in our calculation of transition costs. Because of their contracts, teachers are also limited in the annual leave they can accumulate, so these liabilities are generally much smaller than for other federal civilian employees.

For some period, DoDEA would likely need a significant number of human resources staff, and possibly overtime hours, to process all of the separations. We are currently working with DoDEA staff to estimate these costs.

Facility Lease-Termination Costs

A review of the lease for the DoDEA Americas Area Service Center in Peachtree City, Georgia, indicates that DoDEA can terminate its lease upon payment of four months' rent, or about $1 million. Although we are not aware of other DoDEA facility agreements that would impose specific transition costs, some other costs could be incurred if facilities are no longer required.

Transition Costs for Local Educational Agencies or Education Management Organizations

LEA representatives with whom we spoke expected to have significant costs associated with hiring and training teachers and purchasing curriculum materials and school equipment. Although most were reluctant to estimate a figure, several indicated that these one-time costs would amount to about 10 percent of one year's operating expense. That percentage represents $26 million in transition costs for the LEAs. Because an EMO would face much the same issues, we assume the same transition costs as for LEAs.

Impact Aid is paid in years following the students' enrollment in an LEA. Payments begin in the year following enrollment, with some portion of payments for any given year occurring in the second and third years after enrollment. As a result, LEAs would need temporary assistance until they start receiving Impact Aid. Similarly, many states provide their state funding based on the previous year's enrollments, so LEAs could require assistance for a year until state funds are made available. We discuss these costs further and estimate them in the next section.

Assumptions and Risks

The cost and finance figures we present assume that Congress increases federal Impact Aid allocations so that LEAs besides the ones affected here will not have their funding reduced. Historically, Congress has not fully funded Impact Aid needs, so Congress might not allocate the full amounts we assume, either initially or eventually. If that happens, the affected LEAs (as well as other, nonaffected LEAs) will have to finance the shortfall from local or possibly state sources.

Contracting with either LEAs or EMOs entails financial risk because existing experience is either very limited (only three LEAs have contracts for education services now) or absent (no EMOs have such contracts). We have estimated a range of possible costs as a result, but actual experience might lie outside the range we estimate. Similarly, establishing coterminous district LEAs entails risk because the experience and operating costs of these new LEAs could differ from the comparison LEAs that we use to benchmark costs.

We assume that military-connected students can be effectively educated for costs that are similar to those of other students served by the LEA. There could be reasons that educating military-connected students would cost more or less. They could cost more because of greater psychosocial needs, such as those resulting from parent deployment, associated with military life, or because they have typically higher rates of special-education identification than the adjacent LEAs. They could cost less because their favorable family characteristics (as discussed in Chapter Five) might make them less expensive to serve effectively. To the extent that their cost differs from the LEA average, our estimates of costs and funding could be affected.

Our finance models assume that families with students do not substantially change their location preferences. If such families increasingly prefer to locate off base after a change in school provision, they will likely spread out to multiple LEAs in the area. As a result, military-connected students will be less concentrated in the adjacent LEA and more concentrated in other LEAs. Because the federal Impact Aid formulas are sensitive to the concentration of military-connected students, this dispersal of students could result in less overall Impact Aid provided to districts and thus higher local funding requirements than we estimate.

Summary

Table 6.9 shows the annual operating cost estimates for the six options. For purposes of comparison, we base the costs shown on implementation at all sites, even though some of the options might be infeasible at certain installations. Appendix D provides estimates of the cost of each option at each installation.

Table 6.9 provides information on the total projected annual operating cost and the portions that federal Impact Aid, other federal sources (including direct government operation, contracts, and federal assistance programs), states, and localities fund.

We estimate the total costs of options 2 through 6 to be lower than they are under the status quo. We think that a significant reason for these lower estimates is that many of the areas in this study have low per-pupil expenditures. Reportedly, DDESS teachers earn significantly more than nearby LEA teachers, and, because salaries account for the largest portion of education budgets, DDESS costs per pupil are higher than those in nearby LEAs. There might be some other contributors to these lower estimates as well. Higher special-education

Table 6.9
Summary of Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars

Revenue Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	204.8	0.0	231.7	204.8	0.0
Federal, DoD	427.1	0.0	302–348	5.0	0.0	302–353
Federal, other	0.0	25.7	0.0	23.8	25.7	0.0
State	0.0	115.6	0.0	107.2	115.6	0.0
Local	0.0	30.1	0.0	0.0	30.1	0.0
Total	427.1	376.2	302–348	367.7	376.2	302–353

identification rates, and perhaps more-generous staffing ratios, might also be increasing PPEs in DDESS. We expect per-pupil costs at schools managed by LEAs to be in line with LEA experience.

Options 2, 4, and 5 require states to provide significant funding that they currently do not, and options 2 and 5 might require localities to contribute as well. It is important to note that localities might find it difficult or even infeasible to cover the costs shown in Table 6.9, which we base on a common ratio of state to local funding rather than the actual current ratios in each locality. Some localities are quite small with limited tax bases. Lincoln Public Schools provides an extreme example. The district, which currently operates schools at Hanscom AFB under a special arrangement contract, would experience a 50-percent increase in its student enrollment by taking responsibility for the on-base students. It would fall just short of the heavily impacted threshold, so its Impact Aid payments represent a relatively small share of its projected costs. Because of the community's small size, it would likely need assistance from either state or federal sources to meet the costs of education.

Because Impact Aid would not be paid until the second year of operation, we assume that the budget for federal Impact Aid would be used to provide temporary funding to LEAs in the first year of operation. Because we included these amounts in the operating costs of Table 6.9, we do not include them here. States and localities might not make their funding available until the second year of operation in many cases, so we calculate an amount of temporary assistance that would have to come from special federal or state allocations and show that as temporary assistance in Table 6.10. Table 6.10 also summarizes the one-time costs for employee severance, facility transitions, and school start-up (including purchases and professional development).

Table 6.10
Summary of One-Time Costs, in Millions of Fiscal Year 2013 Dollars

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Employee severance	0	45	45	45	45	45
Facilities	0	1	1	1	1	1
School start-up	0	26	26	26	26	26
Temporary assistance	0	146	0	107	146	0
Total	0	218	72	179	218	72

NOTE: In this table, we do not include costs of processing separations.

CHAPTER SEVEN

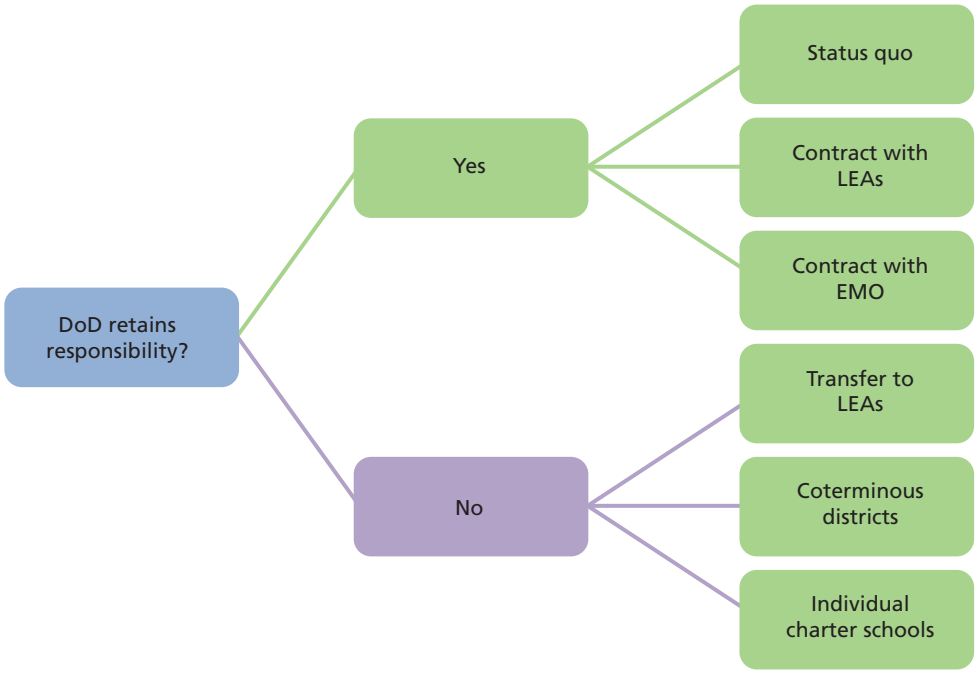
Implementation Planning

DoD ordered this study to examine whether DoD needs to own or operate schools in CONUS. The questions of ownership and operation can be distinguished. Although there are six options for educating military-connected children at the 15 installations, the options form two groups: options in which DoD retains responsibility and options in which DoD transfers that responsibility to states and localities. We therefore recommend thinking about the options in terms of this essential decision. The decision tree in Figure 7.1 diagrams the options available for each installation, following each of the two paths.

It is not necessary to make the same decision on DoD responsibility at all installations. The best balance between cost and quality might be achieved with DoD responsibility at some installations and state responsibility at others. But it might be easier to build political support for a decision to transfer responsibility if it is proposed at all installations.

In the remainder of this chapter, we lay out steps that DoD could take to plan for implementing alternatives to the present arrangements under each of the two broad pathways. For

Figure 7.1
Schooling Options: Decision Tree



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each pathway, we recommend that DoD evaluate each of the alternatives using the study's findings on implementation feasibility, quality, and cost. DoDEA can then start planning with the appropriate educational entities and stakeholders on ways to implement the schooling option selected.

Planning If the U.S. Department of Defense Retains Responsibility

DoD could retain the responsibility for education and carry out that responsibility in one of three ways: the status quo, contract with LEAs, or contract with one or more EMOs. Besides maintaining the status quo, contracting is a feasible option, although we found some questions about how many EMOs might be capable of and interested in operating the schools.

These options might well have different levels of cost and quality. According to our findings, the alternatives to the status quo might have lower costs, but they also entail significant risks to the quality of education. Given the fact that adjacent LEAs tend to be low-performing, current DDESS students might experience lower quality if LEAs provide education under contract, unless DoD helps improve the quality of education in these contracted arrangements by specifying changes, such as additional funding in areas in which the LEAs need improvement.

Contracting with charter schools might limit negative effects on quality if the appropriate mechanisms, structures, and resources are in place, and possibly at lower cost to DoD. Contracts could be competed among both LEAs and EMOs to enhance the level of competition and increase options for the best quality at the most reasonable cost. However, as indicated earlier, EMOs and CMOs might be reluctant to enter into these contracts. DoD might wish to explore the number of CMOs and EMOs that might be interested in contracting before deciding on this option. If it selects this option, we recommend that DoD start discussions with multiple potential providers. Tables 7.1 and 7.2 present the risks and mitigations for contracting with LEAs (option 3) and contracting with EMOs (option 6) and delineates the installations to which the risks apply.

Planning If the U.S. Department of Defense Transfers Responsibility

If DoD desires to transfer responsibility for educating military-connected children, it has three possible options: transfer schools to LEAs, establish coterminous districts, or establish individual charter schools. We find no significant barriers to the transfer of responsibility except in Massachusetts and Delaware, where long-standing precedent exists for DoD responsibility, and perhaps in Kentucky, where the situation is ambiguous.

According to our findings, transfer to LEAs is likely to have somewhat lower total costs and, in particular, lower federal costs than under the status quo. States and localities would have to provide significant funding under these options. If Congress does not maintain federal Impact Aid appropriations, these states and localities might have to increase their contributions over time.

Transfer also entails risks to the quality of education. The adjacent LEAs tend to be low-performing, and, although military-connected students have favorable characteristics that might help them perform better than these LEA averages, there is a concern that current DDESS students would experience lower quality if the adjacent LEAs provide their education.

Table 7.1
Risks, Mitigations, and Application for Option 3

Risk	Mitigation	Application
Cost		
DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should mostly be lower than they are under the status quo.	Consider options in which DoD does not retain responsibility for education costs.	All installations except Dover and Hanscom AFBs (where this option is the status quo)
Costs are likely to be higher than they are under the status quo.	Consider other options.	West Point
Quality		
Adjacent LEAs are ranked in the lower two quartiles, and the state ranks below average nationally.	Contract with higher-achieving LEAs in the state. The federal government could provide additional funding to adjacent LEAs to increase quality.	Maxwell AFB, Fort Rucker, Fort Benning, Fort Stewart, Fort Campbell, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, West Point
Implementation		
LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students.	DoD could work closely with LEAs on a transition plan that addresses staffing.	All installations except Dover and Hanscom AFBs (where this option is the status quo)

There might be some ways to mitigate these risks in certain locations. Coterminous districts and individual charter schools are conditionally feasible and at a subset of installations. Establishing coterminous districts and individual charter schools might produce better-quality education than transfer to the LEAs, but the evidence is unclear, and these options apply only at installations where they are feasible.

If DoD chooses to transfer its responsibility, we recommend beginning discussions with states and LEAs with jurisdiction over the installation as soon as possible. These discussions should explore all of the potentially feasible options at each installation: transfer to LEAs, new coterminous districts, and new individual charter schools. Because the states are central for the adoption of any of the options, we think that exploring all feasible options with each state and LEA makes more sense than selecting a DoD-preferred option in advance. For example, although most states probably have no legal precedent that would prevent a transfer of responsibility, if a state faces a large financial burden and has limited input into the terms of the transfer, it might raise objections to the transfer.

Legislation might also be required at both state and federal levels, depending on the options chosen. For instance, it might be worthwhile to propose modifying the Impact Aid law to provide heavily impacted status for LEAs that would have significant numbers of federally connected children without making them face the waiting period and higher threshold for federally connected membership that the present law requires.

Coterminous districts will also require state cooperation. In some states, the state board of education has authority to establish new school districts; in others, state legislation is required.

Table 7.2
Risks, Mitigations, and Application for Option 6

Risk	Mitigation	Application
Cost		
DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should mostly be lower than they are under the status quo.	Consider options in which DoD does not retain responsibility for education costs.	All installations except Dover and Hanscom AFBs (where this option is the status quo)
Costs are likely to be higher than they are under the status quo.	Consider other options.	Hanscom AFB, West Point
Quality		
EMO performance is mixed.	Develop a competitive and rigorous application and review process to select the best organization to manage the schools. Contracts could be competed among LEAs and EMOs for the best quality at a reasonable cost.	All installations
Implementation		
There is a limited number of EMOs, and they might lack capacity and interest.	Develop a competitive and rigorous application and review process to select the best organization to manage the schools. Contracts could be competed among LEAs and EMOs for the best quality at a reasonable cost.	All installations

If a state sees coterminous districts as an option with benefits to itself and to its students, it might support the approval necessary to create them.

A transfer of responsibility also most likely entails a transfer of facility ownership. If DoD aims to transfer responsibility, we recommend developing a detailed facility plan with states and LEAs—ideally, before more construction projects commence. Although representatives from the LEAs with whom we spoke all desired to use existing school facilities, there might be some instances in which the LEAs have other preferred arrangements for some students, such as middle or high school students. Identifying these options early could save some planned MILCON expenditures.

Tables 7.3. through 7.5 lay out the risks and potential mitigations for DoD transferring its responsibility for educating military-connected children to LEAs (option 2), establishing a coterminous district (option 4), or establishing individual charter schools (option 5).

General Planning

Some activities will be required under any option other than maintaining the status quo. It is important to develop a comprehensive public engagement plan to convey decisions and their rationale to parents, commanders, teachers, local communities, and other stakeholders. In some cases, there might be opportunities to involve the installation community or its represen-

Table 7.3
Risks, Mitigations, and Application for Option 2

Risk	Mitigation	Application
Cost		
State or local taxpayers must provide annual funding.	The federal government could provide additional funding to the state or adjacent LEA beyond Impact Aid.	All installations
Quality		
Adjacent LEAs are ranked in the lower two quartiles, and the state ranks below average nationally.	Contract with higher-achieving LEAs in the state. The federal government could provide additional funding to adjacent LEAs to increase quality.	Maxwell AFB, Fort Rucker, Fort Benning, Fort Stewart, Fort Campbell, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, West Point
Implementation		
LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students.	DoD could work closely with LEAs on a transition plan.	All installations
Facilities might not comply with state laws discouraging LEAs from using installation facilities.	DoD could upgrade facilities so they meet state codes.	All installations
LEAs might find it inefficient to run small middle or high schools.	LEAs can transport middle or high school military-connected students to LEA facilities or add off-base students to on-base students.	Maxwell AFB, Fort Benning, Fort Knox, Fort Campbell, Fort Bragg, Camp Lejeune, MCAS Beaufort, NSWC Dahlgren, West Point
Kentucky has no precedent for educating installation residents.	Work with the states to ensure that appropriate laws and regulations are in place.	Fort Knox, Fort Campbell
Kentucky and Tennessee might not agree on educational standards and how to share responsibility for educating base residents.	Work with the states to ensure that appropriate laws and regulations are in place.	Fort Campbell
State law does not permit funding for the education of on-base students.	Work with the states to change the laws.	Dover AFB (and possibly Hanscom AFB)

tatives in the detailed exploration of local options, such as a coterminous district or individual charter schools.

If DDESS positions are to be eliminated, in whole or in part, DoDEA will need to plan for the reduction in force. Additional human resources staff will likely be needed for a period to process the separations and other alternatives, such as PCS to a new duty location where positions are available, such as DoDDS overseas.

Conclusion

This study examined options for educating military-connected students who reside on the 15 installations where DoD currently takes responsibility. Maintaining the status quo (DDESS

Table 7.4
Risks, Mitigations, and Application for Option 4

Risk	Mitigation	Application
Cost		
State or local taxpayers must provide funding plus start-up costs.	The federal government could provide start-up funds.	Maxwell AFB, Fort Rucker, Fort Knox, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, MCB Quantico, NSWC Dahlgren, Dover AFB, Hanscom AFB, West Point
Quality		
Coterminous district performance is likely to be mixed.	Federal and local governments could provide adequate funding.	Maxwell AFB, Fort Rucker, Fort Knox, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, MCB Quantico, NSWC Dahlgren, Dover AFB, Hanscom AFB, West Point
Implementation		
Transition will take time because it requires establishing a new district office before administrators and staff can be hired.	Use DDESS facilities and hire DDESS staff.	Maxwell AFB, Fort Rucker, Fort Knox, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, MCB Quantico, NSWC Dahlgren, Dover AFB, Hanscom AFB, West Point
Facilities might not comply with state laws discouraging districts from using installation facilities.	DoD could upgrade facilities so they meet state codes.	Maxwell AFB, Fort Rucker, Fort Knox, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, MCB Quantico, NSWC Dahlgren, Dover AFB, Hanscom AFB, West Point
Establishing a new district for a small number of schools might be inefficient.	Consider other options.	Maxwell AFB, Fort Rucker, MCAS Beaufort, Fort Jackson, MCB Quantico, NSWC Dahlgren, Dover AFB, Hanscom AFB, West Point

or special arrangement) is feasible at every installation. In addition, contracting with an LEA appears to be feasible at every installation. Transfer to an LEA is apparently feasible at most installations, with some potential obstacles at two installations historically served by special arrangements (Hanscom and Dover AFBs) and the installations in Kentucky, which lacks a precedent for educating on-base students.

The other options have significant limitations or concerns about legality or implementation. Coterminous districts would require state cooperation, which might be difficult to obtain, and impossible in Georgia. Charter schools are legally or effectively not allowed in states covering six of the 15 installations. Finally, contracting with EMOs might be feasible, but there are significant questions about the capability and willingness of EMOs (or CMOs) to undertake school operation in all of the locations.

The likely federal costs for educating these military-connected children would be eventually lower under any of the options, and DoD costs could be reduced substantially. But the adjacent LEAs tend to be low-performing, and, although military-connected students have favorable characteristics that might help them perform better than these LEA averages, there is a concern that current DDESS students would experience lower quality if the adjacent LEAs provide their education either under contract or by transfer of responsibility.

Some alternatives also entail shifting significant costs from federal agencies to states and localities. Transferring responsibility to states and LEAs for education of on-base students

Table 7.5
Risks, Mitigations, and Application for Option 5

Risk	Mitigation	Application
Cost		
State or local taxpayers must provide annual funding.	The federal government could provide funding to the state beyond Impact Aid.	Fort Benning, Fort Stewart, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, Dover AFB, Hanscom AFB, West Point
Quality		
Charter school performance is likely to be mixed.	DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	Fort Benning, Fort Stewart, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, Dover AFB, Hanscom AFB, West Point
Implementation		
Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing schools, and the schools might therefore lack consistency in leadership.	Task a member of the installation command with some responsibility for overseeing the school, including membership in the governing board.	Fort Benning, Fort Stewart, Fort Bragg, Camp Lejeune, MCAS Beaufort, Fort Jackson, Dover AFB, Hanscom AFB, West Point

would require states and some localities to provide significant funding as a consequence of the reduced federal funding for the education of these students. These large potential cost shifts highlight the importance of DoD, Department of Education, states, and LEAs working closely together to plan any transition.

APPENDIX A

Summary of Selected Research on School Quality Indicators

Table A.1
Summary of Selected Research, by Dimension

Dimension	Summary
Output dimension	
School academic performance	One indicator of school quality is how well students perform academically. Given that the primary purpose of schools is to educate students, there is a general consensus that student achievement is an important indicator of school quality. School-level academic performance measures suggest the degree to which a school has achieved its most central goal—educating students. There are several metrics for assessing school-level academic performance as part of state accountability systems, and those measures can vary by state. School-level measures, such as percentage proficient and average scale scores by grade level and by content area, are commonly used to examine achievement at the school level.
Attendance and graduation rates	In addition to helping students achieve academic success, schools should promote citizenship and responsibility (Wolf, 2005; Hamilton and Stecher, 2010). Students who complete high school are better prepared to pursue higher education and secure employment than students who drop out. High absenteeism and low graduation rates can indicate that schools are not meeting the needs of their students and that they might not have effective intervention programs in place. In addition to being a predictor of graduation, absenteeism has negative effects on self-esteem and achievement (Robins and Ratcliff, 1978; Ehrenberg et al., 1991). Poor attendance can also indicate low student engagement, which has a detrimental effect on student achievement. Students who are chronically absent do not receive the instruction and services they need, and they might be unable to complete their coursework, master the required academic standards, and be promoted to the next grade. A quality school should be successful at retaining students and guiding them toward graduation and the opportunities that will follow.
Parent satisfaction and engagement	Parents have expectations for the type of education and services provided to their children. Parent satisfaction has been associated with school performance, although the strength of that association is unclear (Herman et al., 2008; Hamilton and Stecher, 2010). A 2001 meta-analysis found that parent involvement has at least a moderate effect on student achievement, with parent participation in schools having an especially positive relationship (Fan and Chen, 2001). A study of 83 urban elementary schools, Sheldon, 2003, found that school-wide efforts to increase family and community involvement were associated with higher test scores. High levels of parent satisfaction and engagement can indicate that schools are responding to and meeting the diverse needs of students.

Table A.1—Continued

Dimension	Summary
Input dimension	
School size	Some researchers found that smaller schools tend to offer a more-cohesive culture and a good climate for learning (Mok and Flynn, 1996). Smaller schools have less of the "corrosive disciplinary problems" and attendance problems prevalent in many large schools. Others have found that smaller schools can provide greater opportunity for students to develop socially, such as in their leadership and nonacademic skills (Meier, 1992). There is also some evidence that smaller schools are associated with improved academic achievement and attendance rates (Kuziemko, 2006; Jones, Toma, and Zimmer, 2008). The benefits of smaller schools might be stronger for students from disadvantaged backgrounds (Leithwood and Jantzi, 2009). A 2014 study by MDRC found that students attending smaller high schools in New York City, as part of the small-school creation initiative, have higher graduation rates and postsecondary-education enrollment rates than their peers in larger high schools (Unterman, 2014).
Class size or teacher–student ratio	Class size or teacher–student ratio is commonly associated with school quality. Meta-analysis of hundreds of studies that focused on class size show that having smaller classes raises student performance (Mayer, Mullens, and Moore, 2000). Several studies have identified small to large positive effects of class size on student achievement; however, those short-term effects seem to be limited to reading and math in lower elementary grades and disadvantaged student populations (Glass and Smith, 1979; Slavin, 1989; Robinson and Wittebols, 1986; Robinson, 1990; Mitchell and Mitchell, 1999; Angrist and Lavy, 1999; Cho, Glewwe, and Whitler, 2012). These results are confirmed in a review of the literature by Chingos, 2013. Other studies have found positive associations between class size and student outcomes, including educational attainment and wages, for adults (Fredriksson, Öckert, and Oosterbeek, 2013). Dynarski, Hyman, and Schanzenbach, 2013, also finds an association between small class size and adult educational attainment. The magnitude of these effects was larger for black students, students eligible for free or reduced-price lunch, and students in schools with high poverty levels. Parents also pay attention to class size when deciding where to send their children to school. They want to ensure that their children are receiving one-on-one attention and that teachers have the opportunity to identify and accommodate any special needs their children might have. In order to have smaller classes, a school must be able to hire more teachers. This does lead to the concern that less effective teachers might be hired to fill those spots, thus diluting the overall quality of the teaching staff (Herman et al., 2008; Hamilton and Stecher, 2010). Still, there is merit in assessing class size as a quality criterion, and it should be considered in combination with teacher qualifications and other quality indicators.
Facilities	Many studies have shown that school facilities are a necessary precondition for student learning, provided that other conditions are present that support a strong academic program in school. Poor facility conditions, such as peeling paint, crumbling plaster, nonfunctioning toilets, poor lighting, inadequate ventilation, and inoperative heating and cooling systems, can affect the learning, as well as the health and the morale of staff and students. Neilson and Zimmerman, 2014, finds that investments in school construction in a poor, urban district resulted in an increase in student test scores.

Table A.1—Continued

Dimension	Summary
Teacher qualifications	Teachers are the most important in-school determinant of student achievement, so it is important to employ the most-qualified and best-prepared teachers. Teacher qualifications might include educational attainment, certifications, areas of specialization, and other demonstrated knowledge and skills, although these characteristics are not necessarily associated with teacher effects. The literature has found the effect of teacher education, or attainment of graduate degrees, on student achievement to be negligible (Darling-Hammond, 2000; Darling-Hammond et al., 2005; Kane and Staiger, 2005). For the secondary level, some research shows the relationship between teacher education level and student achievement to be positive. Clotfelter, Ladd, and Vigdor, 2007, finds that high school teachers who completed master's degrees were more effective at increasing student achievement than those without advanced degrees. Similarly, Goldhaber and Brewer, 1997, in an analysis of 1998 National Education Longitudinal Study, find that high school students who were taught by math teachers with master's degrees in mathematics made greater gains in the subject than those taught by teachers with bachelor's degrees in mathematics. Regardless of the effect size and strength of association, teacher education level might serve as a quality signal to parents and the community. Parents presumably want their children to be educated by qualified individuals; therefore, teacher qualifications should be considered in any assessment of school quality. There is evidence that subject-specific certification, in which a teacher must demonstrate subject-matter expertise, has some association with student achievement, especially in secondary mathematics courses (Darling-Hammond, 2000; Cavalluzzo, 2004; Goldhaber and Brewer, 2000). Other teacher characteristics, such as years of experience, especially as it pertains to first few years of experience, might be related to outcomes (Hanushek et al., 2005; Clotfelter, Ladd, and Vigdor, 2007). Research shows that teacher experience matters the most during the first several years of a teacher's career. For example, Hanushek et al., 2005, and Staiger, Gordon, and Kane, 2006, find large gains in teacher effectiveness between the first and second years of teaching but no substantial improvement after the third year in the classroom.
Curriculum standards and implementation	Schools vary in the type of curricula they implement and the method of implementation. The subjects the school curriculum addresses, the subject content in terms of coverage and depth, and the time allocated to each subject are all indications of what the school emphasizes and considers important for students' education. The curricula implemented by the schools should consider carefully the various needs of their constituents while being responsive to curriculum standards, as well as the needs of the workforce (Scheerens and Bosker, 1997; Senk and Thompson, 2003). Thus, evaluations of school quality should consider the curriculum adopted and implemented in schools.

Table A.1—Continued

Dimension	Summary
Process dimension	
Programs offered	Students at any school will invariably include those with a range of abilities, preferences, and needs. Individual students will prefer different instructional methods and excel in different areas. Schools must offer a variety of programs and courses to address the instructional needs of students with different abilities. High-ability students might need accelerated instruction, through AP courses, gifted and talented programs, or other enrichment activities. Some studies have found that students who enroll in more-advanced courses learn more than students who do not and might have a higher probability of college admission, although the magnitudes of these effects are unclear (Raizen and Jones, 1985; Sebring, 1987; Adelman, 2006; Attewell and Domina, 2008). It is essential that schools keep their gifted and talented students motivated and engaged. Having a variety of instructional programs will enable these students to reach their full potential and will better prepare them for higher education. Research also suggests that curriculum intensification can benefit students of different ability levels and demographic groups. Domina and Saldana, 2012, finds that the intensification of mathematics curriculum leads to higher completion rates in low-level math courses, particularly among black, Hispanic, low-SES students, and low-achieving students. Those gains did not hold for higher-level courses, in which high-achieving students continue to outnumber their low-achieving peers. Another important program that schools provide is early education. A child's early years lay the foundation for all that is to come. In recent years, researchers have learned that the human brain develops the vast majority of its neurons, and is at its most receptive to learning, between birth and three years of age. In fact, the intake of new information is critical to the formation of active neural pathways (Shonkoff and Phillips, 2000). Early-education programs thus can play a critical role during this important developmental period. Research has linked pre-K programs to both cognitive and socioemotional gains in children (Bowman, Donovan, and Burns, 2000; Gormley et al., 2005).
Support services offered	There are many nonacademic influences on student behaviors and achievement. Socioemotional and physical health and well-being directly affect student attendance and performance in school. Schools can help students cope with emotional and physical challenges with targeted nonacademic support services. This can include the provision of counseling, peer mentoring, and co-curricular activities. Research has linked comprehensive guidance and counseling programs to various student outcomes, including higher grades, improved discipline, more-positive perceptions of school climate, and a feeling that one is better prepared for the future (Lapan, Gysbers, and Petroski, 2001; Lapan, Gysbers, and Sun, 1997; Lapan, 2005; Lapan, Gysbers, Stanley, et al., 2012; Whiston and Quinby, 2009). In addition to their other challenges, military-connected children must cope with the deployment of one or more parents. The absence of a parent and the associated stress can distract students from their schoolwork. Schools serving military-connected children must have support services in place to meet those unique needs. Pairing academic offerings with nonacademic support services can help students overcome challenges that can hinder the ability to learn, and they can foster positive socioemotional development. By providing adequate support services, schools can promote the health and well-being of students with diverse needs. Thus, the provision of services is an important indicator of school quality.
Special education	Public schools are responsible for educating all children, including those with physical, mental, emotional, and behavioral disabilities. IDEA requires that LEAs accepting federal funds provide interventions, services, and special education to eligible students with disabilities. The law states that all students must be provided free, appropriate public education. In addition to indicating compliance with federal law, the availability and quality of special-education services is an important indicator of a school's ability to identify and meet student needs. An evaluation of a school's special-education services provides insight into the degree to which teachers and administrators are paying attention to students' needs, identifying students who might need extra support, and developing education plans to meet those needs. By providing individualized support, schools can increase attendance, improve student learning, and elevate parent satisfaction. Individual attention to students—not only students with identified disabilities—has been shown to improve student outcomes (National Council on Disability, 2004).

APPENDIX B

Detailed Student Achievement Tables

Table B.1
Domestic Dependent Elementary and Secondary Schools Academic Achievement on TerraNova, by Installation

		Median National Percentile	
Installation	**N**	**Reading**	**Math**
Maxwell AFB	205	72	71
Fort Rucker	296	66	64
Fort Benning	1,383	61	61
Fort Stewart	799	59	57
Fort Knox	1,194	64	62
Fort Campbell	2,480	63	59
Fort Bragg	2,292	61	59
Camp Lejeune	1,514	64	65
West Point	380	78	81
MCAS Beaufort	355	65	65
Fort Jackson	268	61	48
MCB Quantico	480	69	66
NSWC Dahlgren	56	76	79

SOURCE: DoDEA Assessment Data System.

Table B.2
Local Educational Agency Academic Performance on State Assessments: Elementary

Installation	LEA	District Quartile	District Median Percentile	Distribution by District (percentage of schools)			
				Q4	Q3	Q2	Q1
Maxwell AFB	Montgomery Public Schools[a]	1	23.9	14.6	9.8	24.4	51.2
Fort Rucker	Daleville City School District[a]	1	27.7	0.0	0.0	100	0.0
	Enterprise City Schools	4	78.2	50.0	50.0	0.0	0.0
	Ozark City Schools	3	47.4	66.7	33.3	0.0	0.0
Fort Benning	Chattahoochee County School District[a]	2	37.9	0.0	0.0	100	0.0
	Muscogee County School District[a]	1	19.9	10.9	8.7	21.7	58.7
Fort Stewart	Liberty County School System[a]	2	46.7	0.0	36.4	45.5	18.2
Fort Knox	Hardin County Schools[a]	3	56.9	29.4	35.3	17.6	17.6
	Meade County Schools	4	75.0	66.7	33.3	0.0	0.0
Fort Campbell	Christian County School District[a]	2	41.7	0.0	38.5	30.8	30.8
	Clarksville–Montgomery County Schools[a]	4	68.1	34.5	44.8	17.2	3.4
Fort Bragg	Cumberland County Schools[a]	2	42.7	19.7	12.1	48.5	19.7
Camp Lejeune	Onslow County Schools[a]	2	50.3	3.7	44.4	44.4	7.4
West Point	Cornwall Central School District	4	77.4	75.0	25.0	0.0	0.0
	Highland Falls–Fort Montgomery Central School District[a]	2	39.4	0.0	0.0	100	0.0
MCAS Beaufort	Beaufort County School District[a]	2	41.0	13.0	13.0	39.1	34.8
Fort Jackson	Richland County School District 1	3	51.8	28.9	28.9	15.8	26.3
	Richland County School District 2[a]	2	46.1	28.0	24.0	28.0	20.0
MCB Quantico	Prince William County Public Schools[a]	2	48.5	12.0	37.3	34.7	16.0
	Stafford County Public Schools	3	53.6	24.0	40.0	32.0	4.0
NSWC Dahlgren	King George County Schools[a]	3	55.3	33.3	0.0	66.7	0.0

SOURCE: State assessment data systems.

[a] Would receive DDESS students.

Table B.3
Local Educational Agency Academic Performance on State Assessments: Elementary with Special Arrangements

Installation	LEA	District Quartile	District Median Percentile	Distribution by District (percentage of schools)			
				Q4	Q3	Q2	Q1
Dover AFB	Caesar Rodney School District[a]	4	78.3	55.6	33.3	11.1	0.0
	Capital School District	2	39.6	25.0	25.0	50.0	0.0
Hanscom AFB	Bedford Public Schools	3	64.7	50.0	50.0	0.0	0.0
	Lincoln Public Schools[a]	4	74.1	66.7	33.3	0.0	0.0

SOURCE: State assessment data systems.

[a] Current special arrangements at this level.

Table B.4
Local Educational Agency Academic Performance on State Assessments: Middle

Installation	LEA	District Quartile	District Median Percentile	Distribution by District (percentage of schools)			
				Q4	Q3	Q2	Q1
Maxwell AFB	Montgomery Public Schools[a]	1	9.2	16.7	8.3	0.0	75.0
Fort Rucker	Daleville City School District[a]	2	43.4	0.0	0.0	100	0.0
	Enterprise City Schools	4	79.2	100	0.0	0.0	0.0
	Ozark City Schools	3	60.1	0.0	100	0.0	0.0
Fort Benning	Chattahoochee County School District[a]	1	20.6	0.0	0.0	100	0.0
	Muscogee County School District[a]	2	31.4	8.3	25.0	25.0	41.7
Fort Stewart	Liberty County School System[a]	2	45.0	0.0	33.3	66.7	0.0
Fort Knox	Hardin County Schools[a]	3	57.2	16.7	50.0	0.0	33.3
	Meade County Schools	4	75.3	100	0.0	0.0	0.0
Fort Campbell	Christian County School District[a]	1	14.1	0.0	33.3	0.0	66.7
	Clarksville–Montgomery County Schools[a]	2	47.0	0.0	28.6	71.4	0.0
Fort Bragg	Cumberland County Schools[a]	1	33.5	11.8	23.5	35.3	29.4
Camp Lejeune	Onslow County Schools[a]	3	51.4	12.5	50.0	37.5	0.0
West Point	Cornwall Central School District	4	88.7	100	0.0	0.0	0.0
	Highland Falls–Fort Montgomery Central School District[a]	2	34.2	0.0	0.0	100	0.0

Table B.4—Continued

Installation	LEA	District Quartile	District Median Percentile	Distribution by District (percentage of schools)			
				Q4	Q3	Q2	Q1
MCAS Beaufort	Beaufort County School District[a]	1	33.3	0.0	25.0	50.0	25.0
Fort Jackson	Richland County School District 1	1	35.0	11.1	22.2	22.2	44.4
	Richland County School District 2[a]	2	44.9	14.3	42.9	14.3	28.6
MCB Quantico	Prince William County Public Schools[a]	3	64.3	27.8	50.0	11.1	11.1
	Stafford County Public Schools	3	64.5	12.5	75.0	12.5	0.0
NSWC Dahlgren	King George County Schools[a]	4	77.2	50.0	50.0	0.0	0.0

SOURCE: State assessment data systems.

[a] Would receive DDESS students.

Table B.5
Local Educational Agency Academic Performance on State Assessments: Middle with Special Arrangements

Installation	LEA	District Quartile	District Median Percentile	Distribution by District (percentage of schools)			
				Q4	Q3	Q2	Q1
Dover AFB	Caesar Rodney School District[a]	3	67.9	33.3	66.7	0.0	0.0
	Capital School District	1	30.0	0.0	0.0	100	0.0
Hanscom AFB	Bedford Public Schools	3	65.1	0.0	100	0.0	0.0
	Lincoln Public Schools[a]	3	54.2	0.0	50.0	50.0	0.0

SOURCE: State assessment data systems.

[a] Current special arrangements at this level.

APPENDIX C

Findings from Domestic Dependent Elementary and Secondary Schools Stakeholder Interviews and Focus Groups

This appendix presents detailed findings from interviews with DDESS stakeholders regarding their judgment on the quality of the programs and services provided to their students. These findings are based on DDESS stakeholder experiences in their current DDESS. We did not collect similar information from adjacent LEA stakeholders, limiting comparison regarding differences and similarities of services provided in both systems.

Academic Programs

DDESS stakeholders said that the rigor of their academic programs contributes to their students' high performance on TerraNova and NAEP. DDESS academic programs emphasize STEM education. Stakeholders at almost all installations discussed efforts to provide more-robust STEM education, both through classroom instruction and extracurricular activities, such as robotics clubs and STEM nights, and through language and applied technology programs. All these programs aim to help students develop 21st-century skills that include collaboration, digital literary, critical thinking, and problem-solving skills. These efforts are supported by initiatives to upgrade DDESS facilities and instructional technology. Middle and high schools also implement programs to facilitate college preparation.

Another major strength of the DDESS system that almost all stakeholders reported is the consistency in curriculum across all schools and installations. Given the high transiency rate of DDESS students, the standardized curriculum helps foster seamless transitions across schools and installations. Many parents reported that their children who went to DDESS or DoDDS were able to pick up right where they left off when starting a new school on a new installation.

The availability of pre-K programs free of charge for all children on all installations is also viewed as a DDESS strength, as well as a benefit of living on base. Pre-K programs in some LEAs are available only for students with disabilities or students who meet program-specific income requirements. For example, federally funded Head Start and Early Head Start programs are provided free of charge only for families who meet income restrictions.

Some DDESS stakeholders were concerned that, if their students were transferred to the adjacent LEAs, some LEAs might not be able to absorb all four-year-old children into their pre-K programs free of charge.

Although DDESS stakeholders were satisfied overall with the type and quality of academic programs available, parent groups at three of the five installations that serve middle and high school grade levels (Fort Benning, NSWC Dahlgren, and MCB Quantico) said that they would like to see more advanced math classes, college-preparation classes, and AP courses

offered on site instead of online. Those at three other installations (MCAS Beaufort, Fort Knox, and Fort Stewart) said that they would like to see higher standards and higher teacher expectations for students.

Support Services

DDESS provide a wide of range of services to meet their students' educational, emotional, and social needs. A military-connected child follows the parent from base to base according to the service member's assignments, which might range from less than one year for a training assignment up to three years or so for a regular assignment. Many students also have to cope with deployment of their parents. DDESS have oriented their support services to deal with these special aspects of military life. Schools collaborate with the installation commands to take advantage of resources available in the military community and help families access those resources on base. A stakeholder at Camp Lejeune described a "triangle" of support made up of school officials and teachers, parents, and the base or command. Installation staff mentioned that school counselors and Military and Family Life Counseling staff facilitate small groups to support students coping with deployment, grief, stress, and anxiety and help military-connected children build their resiliency. Military Family Life Counseling, which the services provide and which also serve LEA schools that have military-connected children, provide services to families to improve their dynamics and communication. School Liaison Officers also identify and mobilize resources to minimize the impact of military life on children and to help them integrate into the schools.

According to all stakeholders, DDESS provide a cohesive and nurturing environment for military-connected children, many of whom have special emotional needs. DDESS stakeholders agreed that LEA teachers and administrators do not have expertise in supporting military-connected children while a parent is deployed and do not understand the needs of military families. Many DDESS have mentoring and buddy programs to help integrate new students. Furthermore, adults on campus try to connect with and look out for the students. Students are assigned to adult mentors—who might be principals, custodians, or cafeteria workers—who get to know and look out for them. Such support, DDESS principals, teachers, and parents claimed, is not available in public schools.

Parents had the perception that DDESS test each incoming student to determine the child's academic standing, allowing proper placement in class. Academic support is provided in a timely manner to ensure that students are receiving the support they need before transferring again. DDESS provide individualized instructional support, including reading and mathematics remediation programs, after-school tutoring, and extended-day learning. DDESS stakeholders we interviewed contended that adjacent LEAs do not expedite identification and provision of services and that children are not given the same level of individualized attention provided by DDESS. These perceptions were based on personal experiences with the LEAs or on communications with friends who work at or have children attending the LEAs.

Although DDESS stakeholders claim that their children receive greater individual attention, stakeholders at three installations (Fort Bragg, NSWC Dahlgren, and Fort Jackson) indicated that their staff are overworked and need additional support staff, as well as guidance counselors, to help provide services.

Special-Education Services

In accordance with IDEA, all the installations have Preschool Services for Children with Disabilities for children from 3 to 5 years of age and have "find" teams to identify special-need children who are 2 years of age or younger. These young children receive services through the installation hospitals and other resources, including Preschool Services for Children with Disabilities, after reaching 3 years of age.

Special-education counselors and teachers told us that their identification and referral process for special-education students is similar to that of the LEAs but that they expedite the process and involve parents in the meetings. Additionally, a student who qualifies for services in DDESS might not qualify in LEAs, because each state sets its own criteria.

The DDESS special-education program targets students with mild, moderate, and severe disabilities; learning disabilities; communication and emotional impairment; and development delay. The schools and the command work together, through the Exceptional Family Member Program, to provide the appropriate services for the special-need child and family. Families with significant special needs that cannot be met at all installations can be assigned to specific posts that have the resources to meet those needs.[1] These posts (Fort Bragg and Camp Lejeune, in our study) tend to have more resources for special-education students: All assessments occur on the installation, sometimes using the installation medical facilities. At smaller installations, some services are provided off site.

Special-education services are targeted to meet individual student needs. As a stakeholder at Camp Lejeune mentioned, schools adapt to the child rather than have the child adapt to the environment or available services. As required by IDEA, DDESS prioritize the inclusion of special-education students in general-education classes and the broader school community to the extent possible. DDESS policy also provides other options, such as pulling special-education students from class and providing them with services in a separate resource room for a portion of the day or, in severe cases, at home or an off-campus facility. Teachers and counselors indicated that the inclusion policy is not implemented uniformly across installations and schools and that more work is needed on inclusion.

Some special-education teachers and counselors said that they would like to have more training in their areas of specialization, indicating that autism is a particular area of need. Teachers and counselors also expressed the need for additional special-education teachers (Fort Benning and Camp Lejeune), including those who specialize in autism (Fort Jackson, Maxwell AFB, and Fort Stewart). Some specialists and service providers are shared between school sites, which can pose challenges. Many schools indicated that they could benefit from more one-on-one aides.

Extracurricular Activities

DDESS provide academic and nonacademic extracurricular activities, but available opportunities vary by installation. Extracurricular activities might include clubs (e.g., robotics, drama,

[1] As part of the Exceptional Family Member Program, military personnel can request a compassionate reassignment because of such circumstances as having a child with special needs or family member who is ill. Military personnel and their families are reassigned to posts that have the appropriate resources and services.

or chorus) and sports (competitive or noncompetitive). These activities are sponsored by teachers, who receive some compensation for their time, or by outside volunteers. Schools can give extra-duty assignments at their discretion to pay teachers to support after-school clubs. Smaller installations and schools might have more-limited opportunities or might not be able to provide activities appropriate for all grade levels. For example, in Beaufort, students in grades 3 through 8 share the same extracurricular activities. In general, parents would like to see more extracurricular activities and indicated that LEAs provide more opportunities to students.

Stakeholders also mentioned that it is difficult for DDESS to provide and maintain athletic teams. They might not have school personnel available or qualified to coach, or they might have to rely on outside volunteers. Coaches might also be responsible for multiple sports. The transient nature of the military population makes it difficult to retain players. Even when schools are able to field sports teams, they might not be competitive with off-base teams. Some parents are concerned that DDESS athletic programs do not adequately prepare students to compete at off-base high schools.

Parent Engagement

DDESS encourage parent participation. Schools have open-door policies for parents, communicate with them regularly, and provide them with opportunities to be involved (e.g., volunteer on field trips and in classrooms, attend school events, and eat lunch with their children on campus). Because schools are part of the neighborhoods, parents are easily able to volunteer during the school day. At Fort Jackson, parents indicated that they are provided with opportunities to have coffee with the superintendent, lunch with the principal, and attend monthly school-board meetings. Multiple installations also reported that principals invite parents to events to listen to their concerns. Nevertheless, interviews found some variation in administrators' willingness to listen to parent concerns.

Parents also indicated that service members are given an incentive by their commands to be involved in schools. They might be allowed to arrive late to work if they participate in a school activity. For example, at Fort Stewart, parents are given off-duty time from their commanders so that they can meet with teachers, and it is likely that similar accommodations are made at other installations. According to those interviewed, parents are accountable to the military chain of command, so they are more likely to attend conferences than they might in public schools.

Schools also provide parents with opportunities to participate in their governance structure through parent–teacher organizations or school boards. Although these boards are only advisory, parents believe that their participation allows schools to hear and address their concerns. However, there is often turnover in the leadership of these organizations when families permanently change stations, and recruiting parents who have recently moved to a new installation might be challenging.

APPENDIX D

Detailed Financial Analysis

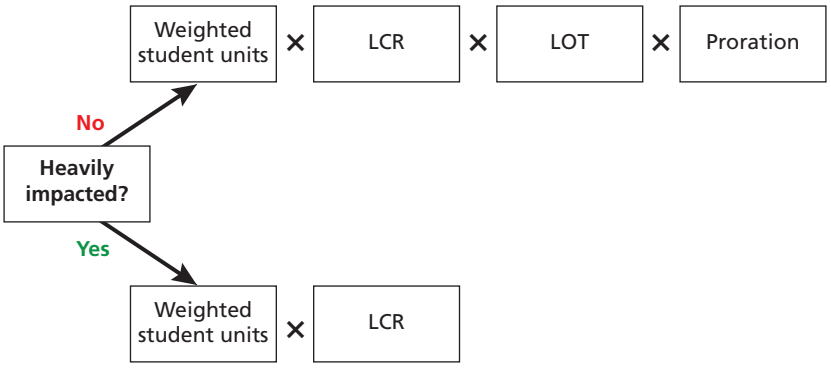
Impact Aid Program Descriptions and Key Assumptions

Department of Education Basic Support

A district is eligible for a BSP if federally connected students number at least 400 or make up at least 3 percent of the district's total average daily attendance. For eligible districts, the maximum BSP is determined by multiplying the district's local contribution rate (LCR) by the weighted number of federally connected student units. The LCR is a rough estimate of the average per-pupil cost of educating a student that the local district pays. The law provides four methods of computing LCRs, and districts are credited with whichever method produces the highest value. Most of the LEAs in our study have LCRs set at the greater of half of the state or national PPE. The law does allow two other calculation methods, and two of our LEAs use those methods: Bedford Public Schools and Highland Falls–Fort Montgomery Central School District. The LCR is multiplied by the number of weighted student units. Each category of students covered by Impact Aid has a weight determined by the law. Military-connected children who reside on an installation receive a weight of 1, while military-connected children who do not reside on an installation receive a weight of 0.2. The maximum BSP a district can receive is the product of its LCR and its weighted student units.

In Figure D.1, we show that, when an LEA is a heavily impacted district, it receives its maximum BSP. When an LEA does not qualify as a heavily impacted district, the law provides two mechanisms to reduce the maximum BSP to a level that fits within the congressional appropriation, which has tended to be well below the maximum BSP amounts. The first mechanism

Figure D.1
Basic Support Payment Calculation



RAND *RR855-D.1*

is the Learning Opportunity Threshold (LOT), which adjusts the maximum BSP downward by a percentage. The LOT is calculated as the sum of two percentages: the percentage of the district's total enrollment that is federally connected and the percentage of the district's total budget that would be represented by the maximum BSP (and is capped at 100 percent). If the LOT modifier is not sufficient to bring the total allocation within the appropriation amount, the law provides for linear proration to be applied to non–heavily impacted districts. In recent years, both of these mechanisms have been necessary.

The Impact Aid law provides several tests to determine whether an LEA is heavily impacted. Districts that are already heavily impacted continue to be considered as such if they have at least 35 percent of their membership federally connected (although the law does specify additional criteria related to the local taxation rate). A district not already heavily impacted must satisfy a higher threshold, generally 50-percent membership, and must satisfy that threshold for two years before being designated as heavily impacted. All but two of the LEAs in our study fall either below the 35-percent or above the 50-percent threshold. It is uncertain whether Congress would allow these districts to be immediately considered as heavily impacted or provide some other transitional funding for them, but, for simulation purposes, we assume that these districts are heavily impacted.

Department of Education Program for Children with Disabilities

The Department of Education Impact Aid has a provision that reimburses LEAs for a portion of the costs of special education. The additional funding is dispersed on a pro rata basis in which children of military off-base personnel receive a weight equal to 50 percent of the weight for children of on-base military personnel or those on Indian lands. The Impact Aid law does not provide special-education money for the children of federal employees or civilians living in low-rent housing. Unlike the Basic Support program, the special-education appropriation is divided among LEAs in proportion to their weighted federally connected special-education student units, regardless of the percentage of federally connected special-education students. The number of DDESS special-education students received for each LEA was determined by FY14 special-education enrollment at the installations. For special arrangements, because we did not have DDESS data, we based the special-education figure on the percentage of special-education students reported on their public school report cards or state data systems. We did not simulate these payments for Bedford Public Schools, which already serves high school students from Hanscom AFB.

Department of Defense Supplemental Payments

DoD provides additional supplemental payments to LEAs if at least 19.5 percent of their students are from military-connected families. For those that have at least 19.5 percent of their average daily attendance from military-connected students, funding is allocated on a basis in which off-base military-connected children receive a weight equal to 20 percent of that for on-base military-connected children. We did not simulate these amounts for Bedford Public Schools high school students because we do not expect their eligibility for this program to change.

Department of Defense Children with Severe Disabilities Program

As does the Department of Education, DoD has a special provision that reimburses LEAs for a portion of the costs of special education, but only for those with severe disabilities. Unlike

the assistance provided by the Department of Education program for children with disabilities, payments for DoD Children with Severe Disabilities are made based on a percentage of specific children's costs for cases that exceed a specified cost threshold. Any LEA can receive these funds if it qualifies, even if it does not receive DoD supplemental funding. Some LEAs receive no funding because none of their cases exceeds the threshold; others receive substantial amounts. As a result, it is impossible to model this program precisely. Instead, we compute an average cost per special-need child over all LEAs that receive this funding, as well as the LEAs that receive DoD supplemental but do not receive these funds. We apply that average to the number of special-need DDESS children projected to go to each LEA. As above, we did not simulate these amounts for Bedford Public Schools high school students because we do not expect their eligibility for this program to change.

Assumptions

Because it can take about three years to finalize all Impact Aid payments, we use data from the most recent fully complete year, FY11, to simulate the impact of changes. Impact Aid appropriations, as well as costs of education, have remained about constant in nominal dollars, so we do not think that the difference in years makes a material difference in estimating costs.

We use the most-current enrollment data available. For option 2 DDESS and special arrangement schools, we use FY13 enrollments because of the need to match to actual expenditures. For all other options, we use FY14 enrollments, which total 2.5 percent less than the FY13 enrollments.

Impact Aid Simulations Under Constant Appropriations

In Chapter Six, we report the results of simulations assuming that Congress increases the appropriations so that funding to other eligible LEAs is not reduced to fund the payments to the affected LEAs under a transfer option. Here, we present the results of simulations under the alternative assumption that all appropriations remain constant.

Should the total Basic Support appropriation remain at $1.14 billion (the FY11 amount), Table D.1 shows, non–heavily impacted districts not receiving DDESS and special arrangement students would lose $189 million in Basic Support payments in order to fund the new

Table D.1
Option 2: Change in Department of Education Basic Support Payments, Appropriation Remains Constant

		Change (thousands of dollars)		
Effect	**Number of LEAs**	**Current**	**Projected**	**Change**
Affected[a]	18	26,231	214,985	+188,754
Nonaffected heavily impacted	23	233,801	233,801	0
Nonaffected non–heavily impacted	1,272	875,692	686,938	–188,754
Total	1,313	1,135,724	1,135,724	0

SOURCE: U.S. Department of Education Impact Aid data.

[a] LEAs receiving DDESS and special arrangement students.

payments to the 18 affected districts. Heavily impacted districts are not affected because their payments are not subject to reduction.

Tables D.2 through D.4 show the allocation of the remaining three Impact Aid programs under the assumption of constant appropriations.

Detailed Cost and Finance Tables

In this section, we present detailed tables showing the cost and finance of each option at each installation. We end the section with a table that reviews all MILCON projects planned from FY14 to FY19.

Table D.2
Option 2: Change in Department of Education Children with Disabilities Payments, Appropriation Remains Constant

		Change (thousands of dollars)		
Effect	**Number of LEAs**	**Current**	**Projected**	**Change**
Affected	18	2,130	5,410	+3,280
Nonaffected	1,295	46,375	43,095	–3,280
Total	1,313	48,505	48,505	0

SOURCE: U.S. Department of Education Impact Aid data.

Table D.3
Option 2: Change in Department of Defense Supplemental Payments, Appropriation Remains Constant

		Change (thousands of dollars)		
Effect	**Number of LEAs**	**Current**	**Projected**	**Change**
Affected	12	3,233	8,976	+5,743
Nonaffected	108	36,767	31,024	–5,743
Total	120	40,000	40,000	0

SOURCE: DoDEA Impact Aid data.

Table D.4
Option 2: Change in Department of Defense Children with Severe Disabilities Payments, Appropriation Remains Constant

		Change (thousands of dollars)		
Effect	**Number of LEAs**	**Current**	**Projected**	**Change**
Affected	18	36	908	+872
Nonaffected	46	3,964	3,092	–872
Total	64	4,000	4,000	0

SOURCE: DoDEA Impact Aid data.

Table D.5
Option 1: Status Quo Total Cost, in Fiscal Year 2013 Dollars

Level	Total Cost
Installation (schools)	352,790,538
District	15,581,384
DDESS share of DoDEA Americas Area Service Center	25,893,200
DDESS share of DoDEA HQ costs	2,172,863
DDESS share of centrally paid expenses	19,080,553
Special arrangements	23,987,651
Total	439,506,189
Fort Knox enrollment reduction	–12,365,948
Adjusted total	427,140,241

NOTE: These are actual FY13 expenditures plus $32 million additional FSRM.

Table D.6
Option 1: Status Quo Costs, by Installation

Installation	State	Number of Students	Cost (FY13 dollars)	
			Per Student	Total
Maxwell AFB	Ala.	390	15,918	6,207,906
Fort Rucker	Ala.	747	15,769	11,779,716
Fort Benning	Ga.	2,975	15,206	45,236,942
Fort Stewart	Ga.	1,926	14,919	28,733,333
Fort Knox	Ky.	2,180	18,212	39,701,130
Fort Campbell	Ky. and Tenn.	5,279	14,998	79,174,309
Fort Bragg	N.C.	5,212	15,943	80,741,751
Camp Lejeune	N.C.	3,161	17,404	55,012,538
MCAS Beaufort	S.C.	897	16,721	14,998,796
Fort Jackson	S.C.	504	18,111	9,128,092
MCB Quantico	Va.	986	23,634	23,303,010
NSWC Dahlgren	Va.	120	26,383	3,165,961
West Point	N.Y.			
DDESS	N.Y.	696	23,830	16,585,628
Highland Falls–Fort Montgomery Central School District special arrangement	N.Y.	180	26,616	4,790,917
Dover AFB	Del.	533	16,127	8,595,667
Hanscom AFB	Mass.			
Lincoln Public Schools	Mass.	603	19,879	11,986,762
Bedford Public Schools	Mass.	134	2,714	363,731
Total		26,523		439,506,189
Fort Knox enrollment reduction	Ky.	–679	18,212	–12,365,948
Adjusted total		25,844		427,140,241

SOURCE: DoDEA data.

Table D.7
Options 2 and 5: Impact Aid, by Installation and Local Educational Agency

			Impact Aid (FY13 dollars)				
Installation	LEA	New Students	Current	Additional	Additional per New Student	Current Contract Cost per Student	PPE
Maxwell AFB	Montgomery Public Schools	346	154,975	218,877	633	n/a	8,594
Fort Rucker	Daleville City School District[a]	715	243,069	6,598,215	9,228	n/a	9,518
Fort Benning	Chattahoochee County School District[a]	2,308	587,847	20,448,453	8,860	n/a	9,278
	Muscogee County School District	446	1,223,233	657,710	1,475	n/a	8,296
Fort Stewart	Liberty County School System[a]	2,071	10,767,023	24,372,568	11,769	n/a	8,389
Fort Knox	Hardin County Schools	1,501	320,745	2,528,021	1,684	n/a	10,007
Fort Campbell	Christian County School District	1,966	195,649	5,094,308	2,591	n/a	13,944
	Clarksville–Montgomery County Schools[a]	2,739	4,140,901	32,744,516	11,955	n/a	8,829
Fort Bragg	Cumberland County Schools[a]	5,085	6,557,003	59,849,552	11,770	n/a	8,173
Camp Lejeune	Onslow County Schools[a]	3,281	5,262,614	37,247,076	11,352	n/a	8,114
MCAS Beaufort	Beaufort County School District	896	22,726	585,581	654	n/a	10,502
Fort Jackson	Richland County School District 2	675	687,537	902,924	1,338	n/a	9,921
MCB Quantico	Prince William County Public Schools	987	1,126,268	1,103,015	1,118	n/a	10,344
NSWC Dahlgren	King George County Schools	89	143,780	172,600	1,939	n/a	8,453
Dover AFB	Caesar Rodney School District	550	46,303	634,197	1,153	15,324	10,396
Hanscom AFB	Lincoln Public Schools	600	0	2,875,469	4,792	20,027	19,598
	Bedford Public Schools	140	150,246	296,928	2,121	1,469	16,600
West Point	Highland Falls–Fort Montgomery Central School District	915	0	8,420,036	9,202	26,680	25,206
Total		25,310	31,629,920	204,750,048			

NOTE: Because of rounding, amounts do not sum precisely.

[a] Heavily impacted.

Table D.8
Options 2 and 5: Transfer Cost and Funding Summary, by Local Educational Agency

Installation	LEA	New Students	Funding (FY13 dollars)				
			Impact Aid	Other Federal	State	Local	Total
Maxwell AFB	Montgomery Public Schools	346	218,877	297,352	1,338,086	1,119,209	2,973,524
Fort Rucker	Daleville City School District	715	6,598,215	680,537	3,062,417	0	10,341,169
Fort Benning	Chattahoochee County School District	2,308	20,448,453	2,141,362	9,636,131	0	32,225,946
Fort Benning	Muscogee County School District	446	657,710	370,002	1,665,007	1,007,297	3,700,016
Fort Stewart	Liberty County School System	2,071	24,372,568	1,737,362	7,818,129	0	33,928,058
Fort Knox	Hardin County Schools	1,501	2,528,021	1,502,051	6,759,228	4,231,207	15,020,507
Fort Campbell	Christian County School District	1,966	5,094,308	2,741,390	12,336,257	7,241,949	27,413,904
Fort Campbell	Clarksville–Montgomery County Schools	2,739	32,744,516	2,418,263	10,882,184	0	46,044,963
Fort Bragg	Cumberland County Schools	5,085	59,849,552	4,155,971	18,701,867	0	82,707,390
Camp Lejeune	Onslow County Schools	3,281	37,247,076	2,662,203	11,979,915	0	51,889,195
MCAS Beaufort	Beaufort County School District	896	585,581	940,979	4,234,406	3,648,826	9,409,792
Fort Jackson	Richland County School District 2	675	902,924	669,668	3,013,504	2,110,580	6,696,675
MCB Quantico	Prince William County Public Schools	987	1,103,015	1,020,953	4,594,288	3,491,273	10,209,528
NSWC Dahlgren	King George County Schools	89	172,600	75,232	338,543	165,942	752,317
Dover AFB	Caesar Rodney School District	550	634,197	571,780	2,573,010	1,938,813	5,717,800
Hanscom AFB	Lincoln Public Schools	600	2,875,469	1,175,880	5,291,460	2,415,991	11,758,800
Hanscom AFB	Bedford Public Schools	140	296,928	232,400	1,045,800	748,872	2,324,000
West Point	Highland Falls–Fort Montgomery Central School District	915	8,420,036	2,306,349	10,378,571	1,985,737	23,063,490
Total		25,310	204,750,048	25,699,734	115,648,801	30,105,695	376,177,074

Table D.9
Option 3: Contracting Cost Summary, by Local Educational Agency

			Cost (FY13 dollars)				
			PPE			Total	
Installation	LEA	New Students	100%	120%	FSRM	At 100%	At 120%
Maxwell AFB	Montgomery Public Schools	346	8,594	10,313	623,049	3,596,573	4,191,347
Fort Rucker	Daleville City School District	715	9,518	11,422	1,287,515	8,092,885	9,454,245
Fort Benning	Chattahoochee County School District	2,308	9,278	11,134	4,156,062	25,569,686	29,853,334
Fort Benning	Muscogee County School District	446	8,296	9,955	803,121	4,503,137	5,243,051
Fort Stewart	Liberty County School System	2,071	8,389	10,067	3,729,292	21,102,911	24,578,049
Fort Knox	Hardin County Schools	1,501	10,007	12,008	2,702,881	17,723,388	20,726,889
Fort Campbell	Christian County School District	1,966	13,944	16,733	3,540,216	30,954,120	36,437,294
Fort Campbell	Clarksville–Montgomery County Schools	2,739	8,829	10,595	4,932,173	29,114,804	33,951,878
Fort Bragg	Cumberland County Schools	5,085	8,173	9,808	9,156,663	50,716,368	59,030,343
Camp Lejeune	Onslow County Schools	3,281	8,114	9,737	5,908,163	32,530,197	37,855,260
MCAS Beaufort	Beaufort County School District	896	10,502	12,602	1,613,445	11,023,237	12,904,837
Fort Jackson	Richland County School District 2	675	9,921	11,905	1,215,486	7,912,161	9,251,361
MCB Quantico	Prince William County Public Schools	987	10,344	12,413	1,777,311	11,986,839	14,028,942
NSWC Dahlgren	King George County Schools	89	8,453	10,144	160,264	912,581	1,063,080
Dover AFB	Caesar Rodney School District	550	10,396	12,475	990,396	8,942,998	8,919,739
Hanscom AFB	Lincoln Public Schools	600	19,598	23,518	1,080,432	12,314,300	12,314,300
Hanscom AFB	Bedford Public Schools	140	16,600	19,920	0	202,060	202,060
West Point	Highland Falls–Fort Montgomery Central School District DDESS	735	25,206	30,247	1,323,529	19,849,939	23,555,074
West Point	Highland Falls–Fort Montgomery Central School District special arrangement	180	25,206	30,247	0	4,573,747	4,573,747
Total		25,310			45,000,000	301,621,933	348,134,832

NOTE: Because of rounding, amounts do not sum precisely.

Table D.10
Option 4: Coterminous District Cost and Funding Summary

		Funding (FY13 dollars)				
Installation	Students	Impact Aid	Other Federal	State	Contract	Total
Maxwell AFB	346	3,542,151	299,325	1,346,961	n/a	5,188,436
Fort Rucker	715	7,418,152	618,547	2,783,459	n/a	10,820,158
Fort Benning	2,754	22,850,433	2,559,843	11,519,294	n/a	36,929,570
Fort Stewart	2,071	17,197,047	1,924,995	8,662,475	n/a	27,784,517
Fort Knox	1,501	17,096,384	1,449,966	6,524,847	n/a	25,071,197
Fort Campbell	4,705	38,412,234	4,545,030	20,452,635	n/a	63,409,899
Fort Bragg	5,085	42,055,982	4,169,192	18,761,362	n/a	64,986,535
Camp Lejeune	3,281	27,082,790	2,690,092	12,105,414	n/a	41,878,296
MCAS Beaufort	896	9,554,797	825,664	3,715,488	n/a	14,095,949
Fort Jackson	675	6,984,404	622,013	2,799,056	n/a	10,405,473
MCB Quantico	987	10,767,390	1,075,238	4,838,570	n/a	16,681,198
NSWC Dahlgren	89	1,350,453	96,957	436,305	n/a	1,883,714
West Point						
DDESS	735	12,667,720	1,423,769	6,406,958	n/a	20,498,446
Highland Falls–Fort Montgomery Central School District special arrangement	180	0	0	0	4,802,400	4,802,400
Dover AFB	550	6,659,739	682,825	3,072,713	n/a	10,415,277
Hanscom AFB						
Lincoln Public Schools DDESS	600	8,023,712	844,860	3,801,870	n/a	12,670,442
Bedford Public Schools special arrangement	140	0	0	0	205,660	205,660
Total	25,310	231,663,389	23,828,312	107,227,406	5,008,060	367,727,167

NOTE: Because of rounding, amounts might not sum precisely.

Table D.11
Option 6: Contracting Cost Summary, by Local Educational Agency, in Fiscal Year 2013 Dollars

			Cost (FY13 dollars)				
			PPE			Total	
Installation	LEA	New Students	100%	120%	FSRM	At 100%	At 120%
Maxwell AFB	Montgomery Public Schools	346	8,594	10,313	623,049	3,596,573	4,191,347
Fort Rucker	Daleville City School District	715	9,518	11,422	1,287,515	8,092,885	9,454,245
Fort Benning	Chattahoochee County School District	2,308	9,278	11,134	4,156,062	25,569,686	29,853,334
Fort Benning	Muscogee County School District	446	8,296	9,955	803,121	4,503,137	5,243,051
Fort Stewart	Liberty County School System	2,071	8,389	10,067	3,729,292	21,102,911	24,578,049
Fort Knox	Hardin County Schools	1,501	10,007	12,008	2,702,881	17,723,388	20,726,889
Fort Campbell	Christian County School District	1,966	13,944	16,733	3,540,216	30,954,120	36,437,294
Fort Campbell	Clarksville–Montgomery County Schools	2,739	8,829	10,595	4,932,173	29,114,804	33,951,878
Fort Bragg	Cumberland County Schools	5,085	8,173	9,808	9,156,663	50,716,368	59,030,343
Camp Lejeune	Onslow County Schools	3,281	8,114	9,737	5,908,163	32,530,197	37,855,260
MCAS Beaufort	Beaufort County School District	896	10,502	12,602	1,613,445	11,023,237	12,904,837
Fort Jackson	Richland County School District 2	675	9,921	11,905	1,215,486	7,912,161	9,251,361
MCB Quantico	Prince William County Public Schools	987	10,344	12,413	1,777,311	11,986,839	14,028,942
NSWC Dahlgren	King George County Schools	89	8,453	10,144	160,264	912,581	1,063,080
Dover AFB	Caesar Rodney School District	550	10,396	12,475	990,396	6,708,196	7,851,646
Hanscom AFB	Lincoln Public Schools	600	19,598	23,518	1,080,432	12,839,232	15,191,232
Hanscom AFB	Bedford Public Schools	140	16,600	19,920	0	2,324,000	2,788,800
West Point	Highland Falls–Fort Montgomery Central School District DDESS	735	25,206	30,247	1,323,529	19,849,939	23,555,074
West Point	Highland Falls–Fort Montgomery Central School District special arrangement	180	25,206	30,247	0	4,537,080	5,444,460
Total		25,310			45,000,000	301,997,336	353,401,124

NOTE: Because of rounding, amounts might not sum precisely.

Table D.12
Military Construction Projects, Fiscal Years 2014 Through 2019

Fiscal Year	Installation	School	Type	Budget (thousands of dollars)
2014	MCAS Beaufort	Charles F. Bolden Elementary and Middle School	Replace	41,324
	Fort Stewart	Diamond Elementary School	Replace	44,504
	Fort Benning	Don C. Faith Middle School	Addition	6,031
		E. A. White Elementary School	Replace	37,304
	Fort Bragg	Holbrook and Pope Elementary Schools	Consolidate	37,032
	Fort Campbell	Fort Campbell High School	Replace	59,278
		Marshall Elementary School	Replace	38,591
	MCB Quantico	Quantico Middle and High School	Replace	40,586
	Hanscom AFB	Hanscom Primary School	Replace	36,213
2015	Camp Lejeune	Lejeune High School	Add	41,306
2016	Fort Bragg	Butner Primary School	Replace	33,452
	Fort Rucker	Fort Rucker Primary and Elementary Schools	Replace	44,452
	Fort Campbell	Jackson Elementary School	Replace	45,627
		Barsanti Elementary School	Add	6,008
	Fort Jackson	Pierce Terrace Elementary School	Replace	23,437
	Fort Knox	Fort Knox High School	Add	40,897
	West Point	West Point Elementary School	Replace	60,180
	Maxwell AFB	Maxwell AFB Elementary and Middle School	Replace	30,388
2017	Dover AFB	Major George Welch Elementary School and Dover AFB Middle School	Replace	47,000
2018	Fort Benning	Loyd Elementary School	Replace	58,972
2019	Fort Campbell	Fort Campbell High School	Renovate	10,241
	Fort Stewart	Brittin Elementary School	Add gym	5,000
Total				787,823

SOURCE: DoDEA MILCON program.

APPENDIX E

Summaries, by Installation

In this appendix, we present one summary for each installation in the study. Each installation summary begins by describing the basic characteristics of the DDESS or special arrangement school at that installation. The summary then shows three tables: one table for the feasibility of the six options, one table for the costs and distribution of costs for each option, and one table giving the major risks and potential mitigations for each option other than maintaining the status quo. Each summary concludes with a brief review of the options' feasibility, relative costs, risks, and potential mitigations.

Maxwell Air Force Base, Alabama

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 346 students attending one DDESS covering elementary and middle grade levels at Maxwell AFB (SY 2013–2014). The total number of DDESS students at Maxwell AFB represents 16 percent of the 2,225 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 8 percent of students were identified for special education, and 24 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, the Maxwell DDESS scored above the national median on TerraNova for both reading (72nd percentile) and math (71st percentile). We estimated the annual operating costs of the DDESS to be $6.2 million.

Characteristics of Adjacent Local Educational Agencies

Ten percent of students attending Montgomery Public Schools were designated for special education (SY 2011–2012) and 73 percent received free or reduced-price lunch (SY 2012–2013). In SY 2012–2013, Montgomery County was ranked in the lowest quartile on state assessments in reading and math for elementary and middle schools.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has below-average performance, suggesting that student performance could decline.

- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** State law does not permit creating new charter schools.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.1
Feasibility of Options: Maxwell Air Force Base, Alabama

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	No: State laws prohibit new charter schools.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.2
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Maxwell Air Force Base, Alabama

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	0.2	0.0	3.5	n/a	0.0
Federal, DoD	6.2	0.0	3.6–4.2	0.0		3.6–4.2
Federal, other	0.0	0.3	0.0	0.3		0.0
State	0.0	1.3	0.0	1.3		0.0
Local	0.0	1.1	0.0	0.0		0.0
Total	6.2	2.9	3.6–4.2	5.1		3.6–4.2

Table E.3
Risks and Mitigations for Options 2 Through 6: Maxwell Air Force Base, Alabama

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $2.4 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than they would be under the status quo. **Mitigation:** Consider options 2 or 4, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $1.3 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	n/a	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than they would be under the status quo. **Mitigation:** Consider options 2 or 4, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks in the bottom quartile in the state assessment (and the state ranks below average nationally, so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** The federal government could provide additional funding to the LEA to increase its quality.	**Risk:** The adjacent LEA ranks in the bottom quartile in the state (and the state ranks below average nationally), so military-connected students' performance might suffer. **Mitigation:** DoD could contract with other, higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	**Risk:** Coterminous district performance is likely to be mixed depending on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	n/a	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.3—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** LEAs might find it inefficient to run small middle schools. **Mitigation:** LEAs could transport middle school military-connected students to LEA facilities or add some off-base students to on-base schools.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** Establishing a new district for a small school might be inefficient. **Mitigation:** Consider options 2, 3, and 6.	n/a	**Risk:** A limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures and to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Fort Rucker, Alabama

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 715 students attending two DDESS elementary schools at Fort Rucker (SY 2013–2014). The total number of DDESS students at Fort Rucker represents 26 percent of the 2,762 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 15 percent of students were identified for special education, and 28 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Fort Rucker DDESS scored above the national median on TerraNova for both reading (66th percentile) and math (64th percentile). We estimated the annual operating costs of the Fort Rucker DDESS to be $11.8 million.

Characteristics of Adjacent LEAs

Ten percent of students attending Daleville City School District schools were identified as children with special needs (SY 2011–2012) and 69 percent were on free or reduced-price lunch (SY 2012–2013). In SY 2012–2013, Daleville City School District was ranked in the second-lowest quartiles on state assessments in reading and math for elementary schools. Middle schools ranked slightly above the median using one method and slightly below the median using another.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has below-average performance, suggesting that student performance could decline.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** State law does not permit creating new charter schools.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.4
Feasibility of Options: Fort Rucker, Alabama

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	No: State laws prohibit new charter schools.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.5
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Fort Rucker, Alabama

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	6.6	0.0	7.4	n/a	0.0
Federal, DoD	11.8	0.0	8.1–9.4	0.0		8.1–9.4
Federal, other	0.0	0.7	0.0	0.6		0.0
State	0.0	3.1	0.0	2.8		0.0
Local	0.0	0.0	0.0	0.0		0.0
Total	11.8	10.4	8.1–9.4	10.8		8.1–9.4

Table E.6
Risks and Mitigations for Options 2 Through 6: Fort Rucker, Alabama

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $3.1M in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $2.8M in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	n/a	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks in the bottom quartile in the state assessment at the elementary level (and the state ranks below average nationally, so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** The federal government could provide additional funding to the LEA to increase its quality.	The adjacent LEA ranks in the bottom quartile in the state at the elementary level (and the state ranks below average nationally), so military-connected students' performance might suffer. **Mitigation:** DoD could contract with other, higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	**Risk:** Coterminous district performance is likely to be mixed depending on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	n/a	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.6—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than that for option 2, 3, or 6 since it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** It might be inefficient to establish a new district for two schools. **Mitigation:** Consider options 2, 3, and 6.	n/a	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures and to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Fort Benning, Georgia

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 2,754 students attending seven DDESS that covered elementary to middle school at Fort Benning (SY 2013–2014). The total number of DDESS students at Fort Benning represents 25 percent of the 10,856 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 17 percent of students were identified for special education, and 52 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Fort Benning DDESS scored above the national median on TerraNova, with a median score at the 61st percentile for both reading and math. We estimated the annual operating costs of the DDESS to be $45.3 million.

Characteristics of Adjacent Local Educational Agencies

Two LEAs adjacent to the installation would receive DDESS students if DoD opted to transfer responsibility to an adjacent LEA: Chattahoochee County School District and Muscogee County School District. In SY 2012–2013, 16 percent of students attending Chattahoochee County School District schools were designated for special education, and 68 percent were on free or reduced-price lunch. Somewhat similar proportions of students with special needs (12 percent) and recipients of free or reduced-price lunch (66 percent) were identified in Muscogee County School District. In SY 2012–2013, Chattahoochee County School District and Muscogee County School District ranked in the lower two quartiles on state assessments in reading and math for elementary and middle schools.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total costs and highest cost to DoD.
- **option 2:** Transfer to the two adjacent LEAs is feasible, although the smaller LEA (Chattahoochee County School District) might face challenges in absorbing a large number of new students. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The two adjacent LEAs have below-average performance, suggesting that student performance could decline.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The two adjacent LEAs have below-average performance, suggesting that student performance could decline if these LEAs are selected as contractors.
- **option 4:** A coterminous district is infeasible because the Georgia constitution prohibits the creation of any new districts in the state.
- **option 5:** Charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.7
Feasibility of Options: Fort Benning, Georgia

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	No: The Georgia constitution prohibits creating any new school districts.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.8
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Fort Benning, Georgia

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	21.1	0.0	n/a	21.1	0.0
Federal, DoD	45.3	0.0	30.0–35.0		0.0	30.0–35.0
Federal, other	0.0	2.5	0.0		2.5	0.0
State	0.0	11.3	0.0		11.3	0.0
Local	0.0	1.0	0.0		1.0	0.0
Total	45.3	35.9	30.0–35.0		35.9	30.0–35.0

Table E.9
Risks and Mitigations for Options 2 Through 6: Fort Benning, Georgia

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $12.3 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the two LEAs beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 5, in which DoD does not retain responsibility for education costs.	n/a	**Risk:** State or local taxpayers must provide about $12.3 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 5, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The two adjacent LEAs rank in the bottom two quartiles in the state (and the state ranks below average nationally), so military-connected students' performance might decline. **Mitigation:** The federal government could provide additional funding to the two LEAs to increase their quality. DoD could support establishment of charter schools under state law.	**Risk:** The two adjacent LEAs rank in the bottom two quartiles in the state (and the state ranks below average nationally), so military-connected students' performance might suffer. **Mitigation:** DoD could contract with other, higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	n/a	**Risk:** Charter school performance varies by school structure and programs. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the best-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.9—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** LEAs might find it inefficient to run small middle schools. **Mitigation:** LEAs could transport middle school military-connected students to LEA facilities or add some off-base students to on-base schools.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	n/a	**Risk:** Because of the transient nature of the military, there might not be enough stakeholders who are willing to take the responsibility for managing the charter school, as well lack of consistency in leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** A limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures and to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Fort Stewart, Georgia

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 2,071 students attending three DDESS that covered elementary grade levels at Fort Stewart (SY 2013–2014). The total number of DDESS students at Fort Stewart represents 15 percent of the 13,625 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 17 percent of students were identified for special education, and 72 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Fort Stewart DDESS scored above the national median on TerraNova for both reading (59th percentile) and math (57th percentile). We estimated the annual operating costs of the DDESS to be $28.8 million.

Characteristics of Adjacent Local Educational Agencies

In SY 2012–2013, 9 percent of students attending Liberty County School System schools were designated for special education, and 68 percent were on free or reduced-price lunch. Liberty County School System was ranked in the second-lowest quartile on state assessments in reading and math for elementary and middle schools.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be higher than they are under the status quo but the DoD share of costs significantly lower. State taxpayers would have to provide funding. The adjacent LEA has below-average performance, suggesting that student performance could decline.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** A coterminous district is infeasible because the Georgia constitution prohibits the creation of any new districts in the state.
- **option 5:** Charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be higher than they are under the status quo but the DoD share of costs significantly lower. State taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.10
Feasibility of Options: Fort Stewart, Georgia

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	No: The Georgia constitution prohibits creating any new school districts.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.11
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Fort Stewart, Georgia

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	24.4	0.0	n/a	24.4	0.0
Federal, DoD	28.8	0.0	21.0–24.5		0.0	21.0–24.5
Federal, other	0.0	1.7	0.0		1.7	0.0
State	0.0	7.8	0.0		7.8	0.0
Local	0.0	0.0	0.0		0.0	0.0
Total	28.8	33.9	21.0–24.5		33.9	21.0–24.5

Table E.12
Risks and Mitigations for Options 2 Through 6: Fort Stewart, Georgia

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $7.8 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 5, in which DoD does not retain responsibility for education costs.	n/a	**Risk:** State or local taxpayers must provide about $7.8 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 5, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** The federal government could provide additional funding to the adjacent LEA to increase its quality. DoD could support establishment of charter schools under state law.	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** DoD could contract with higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	n/a	**Risk:** Charter school performance varies by structure and programs. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.12—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	n/a	**Risk:** Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing the charter school, or to provide consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** A limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures and to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Fort Knox, Kentucky

Domestic Dependent Elementary and Secondary Schools School Characteristics

In SY 2013–2014, 2,102 students attended eight DDESS for elementary, middle, and high school grades at Fort Knox. The total number of DDESS students at Fort Knox represented 45 percent of the 4,691 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 17 percent of students were identified for special education, and 43 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Fort Knox DDESS scored above the national median on TerraNova for both reading (64th percentile) and math (62nd percentile). We estimated the annual operating costs of the DDESS to be $39.7 million.

In SY 2014–2015, DDESS enrollment at Fort Knox decreased to 1,501 students because of force structure realignments. As a result, the installation now operates six rather than eight schools. Given this reduction, we project the annual operating costs of the DDESS to be $27.3 million, and we project the operating costs of all other options on the same basis.

Characteristics of Adjacent Local Educational Agencies

Fifteen percent of students attending Hardin County Schools were designated for special education (SY 2011–2012), and 52 percent were on free or reduced-price lunch (SY 2012–2013). In SY 2012–2013, Hardin County Schools ranked in the second-highest quartile in reading and math for elementary and middle schools.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA might be feasible, but the state lacks a precedent for educating on-base students. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has roughly average performance, suggesting that student performance is not at major risk if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** State law does not permit creating new charter schools.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.13
Feasibility of Options: Fort Knox, Kentucky

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Conditional: Kentucky lacks precedent for educating base residents; state approval and legislation might be required.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	No: The state does not permit creating new charter schools.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.14
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Fort Knox, Kentucky

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	2.5	0.0	17.1	n/a	0.0
Federal, DoD	27.3	0.0	17.7–20.7	0.0		17.7–20.7
Federal, other	0.0	1.5	0.0	1.4		0.0
State	0.0	6.8	0.0	6.5		0.0
Local	0.0	4.2	0.0	0.0		0.0
Total	27.3	15.0	17.7–20.7	25.1		17.7–20.7

NOTE: Because of rounding, amounts might not sum precisely.

Table E.15
Risks and Mitigations for Options 2 Through 6: Fort Knox, Kentucky

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $11.0 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $6.5 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	n/a	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** Moderate to low, given academic performance	**Risk:** Moderate to low, given academic performance	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	n/a	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.15—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Kentucky has no precedent for educating base students. **Mitigation:** Work with the state and the legislature to ensure that appropriate laws and regulations are in place. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** LEAs might find it inefficient to run small middle and high schools. **Mitigation:** LEAs might want to consolidate the DDESS middle schools or could transport middle and high school military-connected students to LEA facilities or add some off-base students to on-base schools.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes.	n/a	**Risk:** Few EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Fort Campbell, Kentucky and Tennessee

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 4,705 students attending nine DDESS that covered elementary to high school grade levels at Fort Campbell (SY 2013–2014). The total number of DDESS students at Fort Campbell represents 26 percent of the 18,083 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 15 percent of students were identified for special education, and 57 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Fort Campbell DDESS scored above the national median on TerraNova for both reading (63rd percentile) and math (59th percentile). We estimated the annual operating costs of the DDESS to be $79.3 million.

Characteristics of Adjacent Local Educational Agencies

Two LEAs adjacent to the installation would receive DDESS students if DoD opted to transfer responsibility to an adjacent LEA. In SY 2012–2013, 12 percent of students attending Christian County School District schools were designated as special education, and 68 percent were on free or reduced-price lunch. Christian County School District was ranked in the bottom-third quartile on state assessments in reading and math for elementary and ranked in the bottom-fourth quartile for middle school assessments. Twelve percent of students attending the Clarksville–Montgomery County School System were designated for special education (SY 2011–2012), and 47 percent were on free or reduced-price lunch (SY 2012–2013). In SY 2012–2013, Clarksville–Montgomery County School System was ranked in the top quartile on elementary state assessments in reading and math but in the second-lowest quartile for middle school assessments.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA might be feasible, but an agreement would be needed between the two states, and Kentucky lacks a precedent for educating on-base students. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent Kentucky LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** Given the division of responsibility between the two states, a coterminous district appears infeasible.
- **option 5:** Kentucky state law does not permit creating new charter schools.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.16
Feasibility of Options: Fort Campbell, Kentucky and Tennessee

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Conditional: Kentucky lacks precedent for educating base residents; legislation might be required. Agreement between Kentucky and Tennessee would be required.	Yes: No law or policy prohibits contracting.	No: The installation extends into both Tennessee and Kentucky. Agreement between the two states is unlikely.	No: The state does not permit charter schools.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.17
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Fort Campbell, Kentucky and Tennessee

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	37.8	0.0	n/a	n/a	0.0
Federal, DoD	79.3	0.0	59.9–70.2			59.9–70.2
Federal, other	0.0	5.2	0.0			0.0
State	0.0	23.2	0.0			0.0
Local	0.0	7.2	0.0			0.0
Total	79.3	73.4	59.9–70.2			59.9–70.2

Table E.18
Risks and Mitigations for Options 2 Through 6: Fort Campbell, Kentucky and Tennessee

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $30.4 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the two LEAs beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider option 2, in which DoD does not retain responsibility for education costs.	n/a	n/a	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider option 2, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** One of the adjacent LEAs (Christian County School District) ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** Transfer students to the second LEA (Clarksville–Montgomery County School System), which is ranked higher. The federal government could provide additional funding to the two LEAs to increase their quality.	**Risk:** One of the adjacent LEAs (Christian County School District) ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** DoD could contract with the higher-achieving LEA (Clarksville–Montgomery County School System), as well as other high-achieving ones in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	n/a	n/a	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.18—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** Kentucky has no precedent for educating base students. Kentucky and Tennessee might not agree on educational standards and how to share responsibility for educating base residents. **Mitigation:** Work with both states to ensure appropriate laws and regulations are in place. **Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** LEAs might find it inefficient to run small middle and high schools. **Mitigation:** LEAs could transport some military-connected students to LEA facilities or add some off-base students to on-base schools.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	n/a	n/a	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures and to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Fort Bragg, North Carolina

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 5,085 students attending 11 DDESS that covered elementary- to middle-grade levels at Fort Bragg (SY 2013–2014). The total number of DDESS students at Fort Bragg represents 18 percent of the 27,956 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 17 percent of students were identified for special education, and 59 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Fort Bragg DDESS scored above the national median on TerraNova for both reading (61st percentile) and math (59th percentile). We estimated the annual operating costs of the DDESS to be $80.8 million.

Characteristics of Adjacent Local Educational Agencies

Fourteen percent of students attending Cumberland County Schools were designated as special education (SY 2012–2013), and 60 percent were on free or reduced-price lunch (SY 2012–2013). In SY 2012–2013, Cumberland County Schools were ranked in the lowest two quartiles on state assessments in reading and math for elementary and middle school assessments.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be higher than they are under the status quo, although the DoD share of costs would be significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has below-average performance, suggesting that student performance could decline.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** Charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.19
Feasibility of Options: Fort Bragg, North Carolina

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.20
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Fort Bragg, North Carolina

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	59.8	0.0	42.1	59.8	0.0
Federal, DoD	80.8	0.0	50.5–58.8	0.0	0.0	50.5–58.8
Federal, other	0.0	4.2	0.0	4.2	4.2	0.0
State	0.0	18.7	0.0	18.8	18.7	0.0
Local	0.0	0.0	0.0	0.0	0.0	0.0
Total	80.8	82.7	50.5–58.8	65.1	82.7	50.5–58.8

Table E.21
Risks and Mitigations for Options 2 Through 6: Fort Bragg, North Carolina

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $18.7 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $18.8 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	**Risk:** State or local taxpayers must provide about $18.7 million in annual funding (more if Congress reduces Impact Aid) **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks below the state median, so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** The federal government could provide additional funding to the LEA to increase its quality. DoD could support establishment of charter schools under state law.	**Risk:** The adjacent LEA ranks below the state median, so military-connected students' performance might decline if students transfer to that LEA. **Mitigation:** DoD could contract with higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	**Risk:** Coterminous district performance is likely to vary with the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	**Risk:** Charter school performance will depend on structure and programs. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.21—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** LEAs might find it inefficient to run small middle schools. **Mitigation:** LEAs could transport middle school military-connected students to LEA facilities or add some off-base students to on-base schools.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, 5, or 6 because it requires the establishment of a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes.	**Risk:** Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing the charter school or to provide consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Camp Lejeune, North Carolina

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 3,281 students attending seven DDESS that cover elementary to high school grade levels at Camp Lejeune (SY 2013–2014). The total number of DDESS students at Camp Lejeune represents 27 percent of the 12,146 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 16 percent of students were identified for special education, and 41 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Camp Lejeune DDESS scored above the national median on TerraNova for both reading (64th percentile) and math (65th percentile). We estimated the annual operating costs of the DDESS to be $55.1 million.

Characteristics of Adjacent Local Educational Agencies

Twelve percent of students attending Onslow County Schools were designated for special education (SY 2011–2012), and 45 percent were on free or reduced-price lunch (SY 2012–2013). In SY 2012–2013, Onslow County Schools were ranked in the second-lowest quartile on state assessments in reading and math for elementary schools and ranked in the second-highest quartile for middle school assessments.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has below-average performance for elementary schools, suggesting that student performance could decline in these grades.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has below-average performance for elementary schools, suggesting that student performance could decline in these grades if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** Charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.22
Feasibility of Options: Camp Lejeune, North Carolina

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.23
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Camp Lejeune, North Carolina

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	37.2	0.0	27.1	37.2	0.0
Federal, DoD	55.1	0.0	32.4–37.7	0.0	0.0	32.4–37.7
Federal, other	0.0	2.7	0.0	2.7	2.7	0.0
State	0.0	12.0	0.0	12.1	12.0	0.0
Local	0.0	0.0	0.0	0.0	0.0	0.0
Total	55.1	51.9	32.4–37.7	41.9	51.9	32.4–37.7

Table E.24
Risks and Mitigations for Options 2 Through 6: Camp Lejeune, North Carolina

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $12 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $12.1 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	**Risk:** State or local taxpayers must provide about $12.0 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks below the state median for elementary schools, so military-connected students' performance might decline if students transfer to the LEA elementary schools. **Mitigation:** The federal government could provide additional funding to the LEA to improve its quality. DoD could support establishment of charter elementary schools under state law.	**Risk:** The adjacent LEA ranks below the state median for elementary schools, so military-connected students' performance might decline if students transfer to the LEA elementary schools. **Mitigation:** DoD could contract with higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	**Risk:** Charter school performance will depend on structure and program. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.24—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** LEAs might find it inefficient to run small middle and high schools. **Mitigation:** LEAs could transport middle and high school military-connected students to LEA facilities or add some off-base students to on-base schools.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer for option 2, 3, 5, or 6 because it requires the establishment of a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes.	**Risk:** Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing the charter school or provide consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** A limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures and to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Marine Corps Air Station Beaufort, South Carolina

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 896 students attending three DDESS that covered elementary- to middle-grade levels at MCAS Beaufort (SY 2013–2014). The total number of DDESS students at MCAS Beaufort represents 36 percent of the 2,465 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 14 percent of students were identified for special education, and 47 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, MCAS Beaufort DDESS scored above the national median on TerraNova for both reading (65th percentile) and math (65th percentile). We estimated the annual operating costs of the DDESS to be $15.0 million.

Characteristics of Adjacent Local Educational Agencies

In SY 2012–2013, 10 percent of students attending Beaufort County School District schools were designated for special education. Information on free and reduced-price lunch is unavailable. Beaufort County School District was ranked in the second-lowest quartile on state assessments in reading and math for elementary schools and ranked in the lowest quartile for middle school assessments. Information on free and reduced-price lunch is unavailable.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has below-average performance, suggesting that student performance could decline.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** Charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.25
Feasibility of Options: Marine Corps Air Station Beaufort, South Carolina

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.26
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Marine Corps Air Station Beaufort, South Carolina

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	0.6	0.0	9.6	0.6	0.0
Federal, DoD	15.0	0.0	11.0–12.9	0.0	0.0	11.0–12.9
Federal, other	0.0	0.9	0.0	0.8	0.9	0.0
State	0.0	4.2	0.0	3.7	4.2	0.0
Local	0.0	3.6	0.0	0.0	3.6	0.0
Total	15.0	9.3	11.0–12.9	14.1	9.3	11.0–12.9

Table E.27
Risks and Mitigations for Options 2 Through 6: Marine Corps Air Station Beaufort, South Carolina

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $7.8 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the two LEAs beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $3.7 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	**Risk:** State or local taxpayers must provide about $7.8 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), meaning that military-connected students' performance might decline if students transfer to the LEA. **Mitigation:** The federal government could provide additional funding to the LEA to increase its quality. DoD could support establishment of charter schools under state law.	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), meaning that military-connected students' performance might decline if students transfer to the LEA. **Mitigation:** DoD could contract with higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	**Risk:** Charter school performance will depend on structure and programs. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.27—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** LEAs might find it inefficient to run small middle schools. **Mitigation:** LEAs could transport middle school military-connected students to LEA facilities or add some off-base students to on-base schools.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, 5, or 6 because it requires the establishment of a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** It might be inefficient to establish a new district for three schools. **Mitigation:** Consider options 2, 3, 5, and 6.	**Risk:** Because of the transient nature of the military, there might not be enough stakeholders who are willing to take responsibility for managing the charter school or provide consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Fort Jackson, South Carolina

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 675 students attending two DDESS that covered elementary-grade levels at Fort Jackson (SY 2013–2014). The total number of DDESS students at Fort Jackson represents 16 percent of the 4,125 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 18 percent of students were identified for special education, and 36 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Fort Jackson DDESS scored above the national median in math (61st percentile) but below it in reading (48th percentile) on TerraNova. We estimated the annual operating costs of the DDESS to be $9.1 million.

Characteristics of Adjacent Local Educational Agencies

In SY 2012–2013, 12 percent of students attending Richland County School District 2 schools were designated for special education. Information on free and reduced-price lunch is unavailable. Richland County School District 2 was ranked in the second-lowest quartile on state assessments in reading and math for elementary and middle school. Information on free and reduced-price lunch is unavailable.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has below-average performance, suggesting that student performance could decline.
- **option 3:** Contracting with one or more LEAs is feasible and probably but not definitely lower cost than the status quo. The adjacent LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. This option has the highest total costs. Academic performance is uncertain.
- **option 5:** Charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are probably but not definitely lower than under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.28
Feasibility of Options: Fort Jackson, South Carolina

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval is required, and new legislation might be required.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.29
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Fort Jackson, South Carolina

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	0.9	0.0	7.0	0.9	0.0
Federal, DoD	9.1	0.0	7.9–9.2	0.0	0.0	7.9–9.2
Federal, other	0.0	0.7	0.0	0.6	0.7	0.0
State	0.0	3.0	0.0	2.8	3.0	0.0
Local	0.0	2.1	0.0	0.0	2.1	0.0
Total	9.1	6.7	7.9–9.2	10.4	6.7	7.9–9.2

Table E.30
Risks and Mitigations for Options 2 Through 6: Fort Jackson, South Carolina

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $5.1 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs might be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $2.8 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	**Risk:** State or local taxpayers must provide about $5.1 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs might be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline if students transfer to the LEA. **Mitigation:** The federal government could provide additional funding to the LEA to increase its quality. DoD could support establishment of charter schools under state law.	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline if students transfer to the LEA. **Mitigation:** DoD could contract with higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	**Risk:** Charter school performance will depend on structure and programs. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.30—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, 5, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** It might be inefficient to establish a new district for two schools. **Mitigation:** Consider options 2, 3, 5, and 6.	**Risk:** Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing the charter school or providing consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Marine Corps Base Quantico, Virginia

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 987 students attending four DDESS that covered elementary to high school grade levels at MCB Quantico (SY 2013–2014). The number of DDESS students at Quantico represents 22 percent of the 4,474 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 12 percent of students were identified for special education, and 35 percent received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, Quantico DDESS scored above the national median on TerraNova for both reading (69th percentile) and math (66th percentile). We estimated the annual operating costs of the DDESS to be $23.3 million.

Characteristics of Adjacent Local Educational Agencies

In SY 2012–2013, 12 percent of students attending Prince William County Public Schools were designated for special education, and 36 percent were on free or reduced-price lunch. Prince William County Public Schools were ranked in the second-lowest quartile on state assessments in reading and math for elementary and ranked in the second-highest quartile for middle school assessments.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has roughly average performance, suggesting that student performance is not at major risk.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has roughly average performance, suggesting that student performance is not at major risk if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** State laws make establishing a new charter school very difficult.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.31
Feasibility of Options: Marine Corps Base Quantico, Virginia

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	No: State laws make establishing a new charter school very difficult.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.32
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Marine Corps Base Quantico, Virginia

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	1.1	0.0	10.8	n/a	0.0
Federal, DoD	23.3	0.0	11.9–14.0	0.0		11.9–14.0
Federal, other	0.0	1.0	0.0	1.1		0.0
State	0.0	4.6	0.0	4.8		0.0
Local	0.0	3.5	0.0	0.0		0.0
Total	23.3	10.2	11.9–14.0	16.7		11.9–14.0

Table E.33
Risks and Mitigations for Options 2 Through 6: Marine Corps Base Quantico, Virginia

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $8.1 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the two LEAs beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.	**Risk:** State or local taxpayers must provide about $4.8 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	n/a	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** Moderate to low, given academic performance	**Risk:** Moderate to low, given academic performance	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	n/a	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.33—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** It might be inefficient to establish a new district for four schools. **Mitigation:** Consider options 2, 3, and 6.	n/a	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Naval Surface Warfare Center Dahlgren, Virginia

Domestic Dependent Elementary and Secondary Schools School Characteristics

There were 89 students attending one DDESS that covered elementary- to middle-grade levels at NSWC Dahlgren (SY 2013–2014). The total number of DDESS students at NSWC Dahlgren represents 19 percent of the 479 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 7 percent of students were identified for special education. In terms of SY 2012–2013 academic performance, NSWC Dahlgren DDESS scored above the national median on TerraNova for both reading (76th percentile) and math (79th percentile). We estimated the annual operating costs of the DDESS to be $3.2 million.

Characteristics of Adjacent Local Educational Agencies

In SY 2012–2013, 16 percent of students attending King George County Schools were designated for special education, and 27 percent were on free or reduced-price lunch. King George County Schools were ranked in the second-highest quartile on state assessments in reading and math for elementary and ranked in the top quartile for middle school state assessments.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest total cost and the highest cost to DoD.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has good performance, suggesting that student performance is not at major risk.
- **option 3:** Contracting with one or more LEAs is feasible and likely lower cost than the status quo. The adjacent LEA has good performance, suggesting that student performance is not at major risk if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. Academic performance is uncertain.
- **option 5:** State laws make establishing a new charter school very difficult.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.34
Feasibility of Options: Naval Surface Warfare Center Dahlgren, Virginia

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	No: State laws make establishing a new charter school very difficult.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.35
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Naval Surface Warfare Center Dahlgren, Virginia

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	0.2	0.0	1.4	n/a	0.0
Federal, DoD	3.2	0.0	0.9–1.1	0.0		0.9–1.1
Federal, other	0.0	0.1	0.0	0.1		0.0
State	0.0	0.3	0.0	0.4		0.0
Local	0.0	0.2	0.0	0.0		0.0
Total	3.2	0.8	0.9–1.1	1.9		0.9–1.1

Table E.36
Risks and Mitigations for Options 2 Through 6: Naval Surface Warfare Center Dahlgren, Virginia

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $0.5 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.	**Risk:** State or local taxpayers must provide about $0.4 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	n/a	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2 and 4, in which DoD does not retain responsibility for education costs.
Quality	Few risks	Few risks	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	n/a	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.36—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities. **Mitigation:** DoD could upgrade facilities to meet state codes. **Risk:** LEAs might find it inefficient to run a combined elementary and middle school. **Mitigation:** LEAs could transport middle school military-connected students to LEA facilities or add some off-base students to the on-base school.	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** It might be inefficient to establish a new district for one school. **Mitigation:** Consider options 2, 3, and 6.	n/a	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Dover Air Force Base, Delaware

Special Arrangement School Characteristics

There were 550 students attending two schools on the installation that covered elementary- to middle-grade levels at Dover AFB (SY 2013–2014). These schools are run by contract with the Caesar Rodney School District. The total number of students at Dover AFB represents 35 percent of the 1,587 military-connected children whose sponsors are assigned to this installation. We estimated the annual operating costs of the contract plus an allowance for FSRM to be $8.6 million.

Characteristics of Adjacent Local Educational Agencies

Caesar Rodney School District was ranked in the top quartile on state assessments in reading and math for elementary and ranked in the second-highest quartile for middle school state assessments.

For this installation, the status quo is contracting with the LEAs under the existing special arrangements. As a result, option 3 is the same as continuing the status quo and is shown as not applicable (n/a) in Tables E.37 through E.39.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the highest cost to DoD.
- **option 2:** State law prohibits transfer to an adjacent LEA so the law must be changed to allow transfer. If it is feasible, the total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The education provider would not change, so there should be low risk to student performance.
- **option 3:** This is the same as the status quo.
- **option 4:** If state law is changed to take responsibility for on-base students, a coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. This option has the highest total cost, although the likely DoD share would be lower than under the status quo. Academic performance is uncertain.
- **option 5:** If state law is changed to take responsibility for on-base students, charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely lower than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.37
Feasibility of Options: Dover Air Force Base, Delaware

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: DoD can take the responsibility for educating military-connected students.	Conditional: This would require a change in state law.	n/a	Conditional: State approval and new legislation are required.	Conditional: State approval and new legislation are required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.38
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Dover Air Force Base, Delaware

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	0.6	n/a	6.7	0.6	0.0
Federal, DoD	8.6	0.0		0.0	0.0	6.7–7.8
Federal, other	0.0	0.6		0.7	0.6	0.0
State	0.0	2.6		3.1	2.6	0.0
Local	0.0	1.9		0.0	1.9	0.0
Total	8.6	5.7		10.5	5.7	6.7–7.8

Table E.39
Risks and Mitigations for Options 2 Through 6: Dover Air Force Base, Delaware

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $4.5 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	n/a	**Risk:** State or local taxpayers must provide about $3.1 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	**Risk:** State or local taxpayers must provide about $4.5 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, although these costs should be lower than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.
Quality	Because the provider remains the same, there is no additional risk.	n/a	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	**Risk:** Charter school performance will depend on the structure and programs. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.39—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** State law does not permit funding for the education of on-base students. **Mitigation:** Work with the state to change the law. Consider option 6.	n/a	**Risk:** State law does not permit funding for the education of on-base students. **Mitigation:** Work with the state to change the law. Consider option 6. **Risk:** Transition time will take longer than for option 2, 3, 5, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** It might be inefficient to establish a new district for three schools. **Mitigation:** Consider options 2, 5, and 6.	**Risk:** State law does not permit funding for the education of on-base students. **Mitigation:** Work with the state to change the law. Consider option 6. **Risk:** Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing the charter school or provide consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** A limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures and to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Hanscom Air Force Base, Massachusetts

Special Arrangement School Characteristics

There were 740 students attending three schools that covered elementary to high school grade levels at Hanscom AFB (SY 2013–2014). The elementary and middle schools are on the installation and are operated under contract with Lincoln Public Schools. High school students attend Bedford High School under a contract that provides funding for the transportation of these students, with the LEA funding their educational costs. Data are unclear about the percentage of military-connected children who are served by these arrangements. We estimated the annual operating costs of these contracts plus an allowance for FSRM for the on-base schools to be $12.2 million.

Characteristics of Adjacent Local Educational Agencies

Lincoln Public Schools were ranked in the top quartile on state assessments in reading and math for elementary and ranked in the second-highest quartile for middle school state assessments.

For this installation, the status quo is contracting with the LEAs under the existing special arrangements. As a result, option 3 is the same as continuing the status quo and is shown as not applicable (n/a) in Tables E.40 through E.42.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has a high cost to DoD.
- **option 2:** State policy prohibits transfer to an adjacent LEA, so the law must be changed to allow transfer. If it is feasible, the total costs of education are likely to be higher than they are under the status quo but the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The education provider would not change, so there should be low risk to student performance.
- **option 3:** This is the same as the status quo.
- **option 4:** If state policy is changed to take responsibility for on-base students, a coterminous district could be established with state agreement. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding. This option has higher costs than the status quo, although the likely DoD share would be lower than it is under the status quo. Academic performance is uncertain.
- **option 5:** If state policy is changed to take responsibility for on-base students, charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be lower than they are under the status quo and the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely to be higher than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.40
Feasibility of Options: Hanscom Air Force Base, Massachusetts

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: DoD can take the responsibility for educating military-connected students.	Conditional: This requires a change in state policy.	n/a	Conditional: State approval and, possibly, new legislation are required.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.41
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: Hanscom Air Force Base, Massachusetts

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	3.2	n/a	8.0	3.2	0.0
Federal, DoD	12.2	0.0		0.2	0.0	15.1–18.0
Federal, other	0.0	1.4		0.8	1.4	0.0
State	0.0	6.3		3.8	6.3	0.0
Local	0.0	3.2		0.0	3.2	0.0
Total	12.2	14.1		12.8	14.1	15.1–18.0

Table E.42
Risks and Mitigations for Options 2 Through 6: Hanscom Air Force Base, Massachusetts

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $9.5 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the adjacent LEA beyond Impact Aid.	n/a	**Risk:** State or local taxpayers must provide about $3.8 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	**Risk:** State or local taxpayers must provide about $9.5 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, and these costs would be higher than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.
Quality	Because the provider remains the same, there is no additional risk.	n/a	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	**Risk:** Charter school performance will depend on the structure and program. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization for managing the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.42—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** State policy does not permit funding for the education of on-base students. **Mitigation:** Work with the state to change policy. Consider option 6.	n/a	**Risk:** State policy does not permit funding for the education of on-base students. **Mitigation:** Work with the state to change policy. Consider option 6. **Risk:** Transition time will take longer than for option 2, 3, 5, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** It might be inefficient to establish a new district for three schools. **Mitigation:** Consider options 2, 5, and 6.	**Risk:** State policy does not permit funding for the education of on-base students. **Mitigation:** Work with the state to change policy. Consider option 6. **Risk:** Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing the charter school or to provide consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

West Point Military Reservation, New York

Domestic Dependent Elementary and Secondary Schools and Special Arrangement School Characteristics

There were 915 students in DDESS and special arrangement schools here: 735 DDESS students attending one elementary and one middle school and 180 special arrangement high school students attending the Highland Falls–Fort Montgomery Central School District public school (SY 2013–2014). DoD has a contract with the LEA to provide educational services to high school students residing at the installation. The total number of DDESS and special arrangement students at West Point represents 72 percent of the 1,273 military-connected children whose sponsors are assigned to this installation. In SY 2012–2013, 14 percent of students were identified for special education, and none received free or reduced-price lunch services. In terms of SY 2012–2013 academic performance, West Point DDESS scored above the national median on TerraNova for both reading (78th percentile) and math (81st percentile). We estimated the annual operating costs of the DDESS and special arrangement schools to be $21.2 million.

Characteristics of Adjacent Local Educational Agencies

In SY 2012–2013, 11 percent of students attending Highland Falls–Fort Montgomery Central School District schools were designated for special education, and 28 percent were on free or reduced-price lunch. Highland Falls–Fort Montgomery Central School District was ranked in the second-lowest quartile on state assessments in reading and math for both elementary and middle school.

Summary of Feasibility, Cost, Risks, and Mitigations

- **option 1:** Maintaining the status quo is feasible. It has the lowest total cost.
- **option 2:** Transfer to an adjacent LEA is feasible. The total costs of education are likely to be higher than they are under the status quo but the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. The adjacent LEA has below-average performance, suggesting that student performance could decline.
- **option 3:** Contracting with one or more LEAs is feasible but at a likely higher cost than the status quo. The adjacent LEA has below-average performance, suggesting that student performance could decline if this LEA is selected as contractor.
- **option 4:** A coterminous district could be established if the state agrees. The state would have to establish a new district infrastructure. Burden on local taxpayers would be reduced, although the state would still have to provide funding, and this option has the highest total costs. Academic performance is uncertain.
- **option 5:** Charter schools might be established with state cooperation and support from the installation community. The total costs of education are likely to be higher than they are under the status quo but the DoD share of costs significantly lower. State and local taxpayers would have to provide funding. Academic performance is uncertain.
- **option 6:** Contracting with an EMO might be feasible, although few EMOs appear interested. Costs are likely higher than they are under the status quo. Academic performance is uncertain, but a competitive contracting process could minimize declines.

Table E.43
Feasibility of Options: West Point Military Reservation, New York

1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Yes: Maintaining the status quo is feasible.	Yes: No law or policy prohibits transfer.	Yes: No law or policy prohibits contracting.	Conditional: State approval and, possibly, new legislation are required.	Conditional: State approval is required; installation community support might be needed.	Conditional: CMOs and EMOs might lack sufficient capacity or interest to manage the schools.

Table E.44
Estimated Annual Operating Costs, in Millions of Fiscal Year 2013 Dollars: West Point Military Reservation, New York

Source	1 Status Quo	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Federal, Impact Aid	0.0	8.4	0.0	12.7	8.4	0.0
Federal, DoD	21.2	0.0	24.4–28.1	4.8	0.0	24.4–29.0
Federal, other	0.0	2.3	0.0	1.4	2.3	0.0
State	0.0	10.4	0.0	6.4	10.4	0.0
Local	0.0	2.0	0.0	0.0	2.0	0.0
Total	21.2	23.1	24.4–28.1	25.3	23.1	24.4–29.0

Table E.45
Risks and Mitigations for Options 2 Through 6: West Point Military Reservation, New York

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Cost	**Risk:** State or local taxpayers must provide about $12.4 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state or the two LEAs beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, and these costs would be higher than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.	**Risk:** State taxpayers must provide about $6.4 million in annual funding (more if Congress reduces Impact Aid), plus start-up costs. **Mitigation:** The federal government could provide start-up funds.	**Risk:** State or local taxpayers must provide about $6.4 million in annual funding (more if Congress reduces Impact Aid). **Mitigation:** The federal government could provide additional funding to the state beyond Impact Aid.	**Risk:** DoD would retain full responsibility for all education costs (including FSRM) for military-connected children, and these costs would be higher than those of the status quo. **Mitigation:** Consider options 2, 4, and 5, in which DoD does not retain responsibility for education costs.
Quality	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline in a transfer to the LEA. **Mitigation:** The federal government could provide additional funding to the two LEAs to increase their quality. DoD could support establishment of charter schools under state law.	**Risk:** The adjacent LEA ranks below the state median (and the state ranks below average nationally), so military-connected students' performance might decline in a transfer to the LEA. **Mitigation:** DoD could contract with higher-achieving LEAs in the state; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.	**Risk:** Coterminous district performance is likely to depend on the characteristics of the system established. **Mitigation:** Federal and local governments could provide adequate funding to attract the best teachers, ensure small class sizes, and implement high-quality academic programs and student supports.	**Risk:** Charter school performance will depend on structure and programs. **Mitigation:** DoD could develop a competitive and rigorous application and review process to attract and select the most-qualified stakeholders.	**Risk:** EMO performance is mixed. **Mitigation:** DoD could develop a competitive and rigorous application and review process to select the best organization to manage the schools; contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

Table E.45—Continued

Dimension	2 Transfer to LEA	3 Contract with LEA	4 Coterminous District	5 Individual Charter Schools	6 Contract with EMO
Implementation	**Risk:** LEAs might not have the resources or staff to immediately assume responsibility for educating military-connected students. **Mitigation:** DoD could work closely with LEAs on a transition plan that addresses staffing, as well as funding beyond Impact Aid. **Risk:** Facilities might not comply with state laws, thus discouraging LEAs from using the installation facilities **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** LEAs might find it inefficient to run small middle schools. **Mitigation:** LEAs could transport middle school military-connected students to LEA facilities or add some off-base students to on-base schools.	Risk is anticipated to be moderate because DoD already contracts with this LEA for high school, although additional education responsibilities might strain LEA resources and staffing. **Mitigation:** DoD could work closely with the LEA on a transition plan that addresses staffing.	**Risk:** Transition time will take longer than for option 2, 3, 5, or 6 because it requires establishing a new district office before hiring administrators and teaching staff. **Mitigation:** Use DDESS facilities and hire DDESS teaching staff and possibly administrators. **Risk:** Facilities might not comply with state laws, thus discouraging the district from using the installation facilities. **Mitigation:** DoD could upgrade facilities so they meet state codes. **Risk:** It might be inefficient to establish a new district for three schools. **Mitigation:** Consider options 2, 3, 5, and 6.	**Risk:** Because of the transient nature of the military, there might not be enough stakeholders willing to take responsibility for managing the charter school or provide consistent leadership. **Mitigation:** Task a member of the installation command with some responsibility for overseeing the charter schools, including membership in the governing board.	**Risk:** Only a limited number of EMOs might be interested in providing education services in dispersed areas away from their support structures or to military-connected students. **Mitigation:** Contracts could be competed among both LEAs and EMOs to increase the level of competition and increase options for the best quality at the most reasonable cost.

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The U.S. Department of Defense Education Activity (DoDEA) currently operates or contracts with local educational agencies to operate schools on 15 contiguous United States (CONUS) military installations. DoDEA sponsored the project reported here to research and evaluate the options for educating military-connected children on these 15 installations. This report identifies the set of feasible options for educating military-connected children at these installations and determines which options are feasible at each installation. It evaluates the feasible options in terms of expected school quality, costs, and implementation considerations. It also specifies the construction and implementation implications for each feasible option.

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