Defense research-and-development spending is declining, fewer high-tech companies find it financially rewarding to help the military create weapons for the information age. Meanwhile, the Pentagon oversees a vast overcapacity of bases and other installations that consume billions of dollars, thanks to bureaucratic turf wars and congressional parochialism.

—Thomas Ricks
*Wall Street Journal*
November 15, 1999

**CONTEXT**

The U.S. Army controls roughly 12.7 million acres of land, making it one of the largest landholders in the country. While most of this acreage consists of open training and testing facilities, Army real property also includes more than 207,000 buildings, tens of thousands of miles of road, a million square yards of pavement, ports and runways, and utility structures—all of which require maintenance (source: Army Directorate of Public Works).

Unfortunately, although the Army is real estate rich, it is poor—in both funding and personnel—when it comes to the resources needed to manage and maintain its holdings. Since the end of the Cold War, resource allocation to the Army for real property maintenance has declined much faster than the rate at which the Army has been able to divest itself of its property. While the Army has transferred less than 2 percent of its land holdings over the last decade (Shambach,
its appropriations for real property maintenance have been halved. The resulting shortfall is reflected in the difference between the estimated fiscal year 1999 (FY99) requirement for real property maintenance and the actual appropriation for that year: The Office of the Assistant Chief of Staff for Installations Management (ACSIM) estimated its requirement for real property maintenance at $2.26 billion but only received a $1.45 billion appropriation in FY99 (U.S. GAO, 1999b). In a similar though less dramatic manner, the Army’s military construction budget has declined by about 25 percent since the end of the Cold War. As a result, many Army facilities now need substantial repair and maintenance. There are plans to increase resources for real property maintenance, but that increase is not guaranteed given the Army’s multiple and simultaneous resource requirements.

Not only have there been budget cuts for real property maintenance, but the Army’s personnel level also has dropped substantially in the decade since the Cold War ended: 50 percent in the case of civilian employees and over 30 percent in the military ranks (Office of the Under Secretary of Defense (Comptroller), 1999). Since the Army’s real property divestments have been much smaller, we believe this implies that the Army’s real property holdings are underutilized. It also means that fewer personnel are looking after the same real property holdings.

The mismatch between real property holdings and the resources to support or use them forces the Army to make unpleasant choices. It can either spread and dilute limited maintenance resources over all requirements; prioritize its resources based on need; or identify those assets most important to its current mission and apply re-

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1Since 1988, the Base Realignment and Closure (BRAC) process has identified 200,000 acres of Army land that will be transferred from the Army. Fewer than 50,000 acres have been transferred to date.

2In the late 1980s, real property maintenance averaged over $2.3 billion per year, while in the late 1990s it averaged $1.1 billion. These data are compiled from the Army Green Books, 1984–1989 and 1995–2000. The citation for the most recent Green Book is Assistant Secretary of the Army, Financial Management and Comptroller, The Army Budget: FY01 President’s Budget, Washington, D.C.: Headquarters, Department of the Army, February 2000, p. 41.

3Some facilities are estimated to be utilized at less than one-third capacity (Shambach, 1999).
sources there, while ignoring or, at best, very significantly under-maintaining the rest. Each of these choices has significant negative impacts, including deteriorating infrastructure, loss of “surge” capability, declining morale, and significant future restoration cost. Limited budgetary relief will probably not solve the problem, and additional base closures are problematic in the near term.

In this chapter we examine public-private partnerships (PPPs), which can be part of a solution to the dilemma posed by underutilized and undermaintained facilities. We begin with a discussion of what PPPs are; then we explain their benefits and some of the reasons the Army has not used them more (along with some ideas for addressing these reasons). Finally, we look at a proposed approach for using real property PPPs.

**WHAT ARE PPPs?**

PPPs are arrangements in which the private and public sectors collaborate in some manner to achieve mutually beneficial goals. In general, PPPs differ from the traditional forms of public-private interactions in that traditional forms are characterized by a one-way flow of money—from the government to the private entity—with the private entity providing a service or product in return. Standard contracts to design weapon systems would be an example of traditional public-private interaction. In such interactions, the private party’s incentive is normally to maximize profits realized from the transactions, while the government’s goal is to obtain specific services and products for the money expended.

Unlike these traditional public-private interactions, PPPs are much more flexible. They are characterized by a sharing of resources to achieve similar or, at least, not-incompatible goals. For the Army, the most important aspect of PPPs is that they can deal with the Army’s nonmonetary resources, including real property, that are valuable and can be used to achieve Army requirements if used imaginatively and flexibly.

Real property PPPs are not new to the federal government. For example, the General Accounting Office (GAO) studied six real estate partnerships entered into by the U.S. Postal Service and the Department of Veterans Affairs (U.S. GAO, 1999c). These partnerships
operate on several different models, but all involve bringing in private real estate developers to develop, manage, and operate publicly owned property, and they all provide tangible benefits to both partners. The government receives income from its underutilized property, as well as improved maintenance of that property. The private partner earns profits and gains access to attractive business locations.

The Civil Reserve Airfleet (CRAF) program is a current example of a PPP in the Department of Defense. CRAF is a public-private partnership in which commercial airline and air freight companies set aside specified aircraft for federal use during national emergencies. Occasionally, these aircraft are even modified to accommodate the types of materiel and missions required during call-up. As compensation, the involved companies are guaranteed a portion of the government’s peacetime business. CRAF is not a case involving private-sector use of government assets, but its structure is similar to the real estate partnerships we recommend in a fundamental way: resources are used and maintained in peace by the private sector and are thus quickly available in times of national emergency (“Civil Reserve Air Fleet,” 1999).

A more direct example of how public-private real estate partnerships enhance readiness is the Navy’s lease of part of its Port Hueneme facility to the Mazda Corporation. Mazda leases underutilized facilities from the Navy and, in return, helps to maintain the facility. This arrangement helps the Navy ensure that the facility will be ready immediately should expanded capability be necessary to address a national emergency.

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4 CRAF participants are allocated a portion of the government’s passenger and air freight business based on the total passenger and lift capability of the aircraft they enroll in the CRAF program. These aircraft are contractually promised to the government for use during call-up. As a result, the government avoids the cost of acquiring, maintaining, and manning the aircraft during peacetime. The government also receives reasonable and stable prices for air services during peacetime, though these government-negotiated fares may be higher than commercially available, advance-purchase, nonrefundable fares.

5 Private communication with Contracting Officer, Port Hueneme Navy CBC, on Mazda Lease, Contract Number N62474-96-RPOQ04, 1997.
WHAT ARE THE BENEFITS OF PPPs?

These successes indicate that the Army could also substantially benefit by entering into similar arrangements. Previous RAND research (Chang et al., 1999) has identified some of these benefits: (1) improving the Army’s readiness posture, (2) leveraging assets to generate revenue and reduce cost, and (3) leveraging non-Army resources for improving and adding to Army assets. We discuss these three items below.

Improving the Army’s Readiness Posture

Of all the benefits of public-private real estate partnerships, the most important may be that using them may improve the Army’s readiness posture. First, since real property maintenance is not an Army core competency, involving a larger percentage of the Army’s personnel in this task reduces their contribution to the Army’s primary mission of preparing for, deterring, and fighting the nation’s wars. Any measure, such as a real estate public-private partnership, that improves the Army resource allocation toward its core missions should improve its readiness posture.

Second, as mentioned earlier, the Army’s civilian and military personnel strength has declined dramatically over the last decade, and its budget for real property maintenance has also decreased steeply. Since its real property holdings have not declined at the same rate, this implies that either a greater percentage of the Army’s workforce is involved in maintaining property or the property is not being maintained effectively. Letting underutilized property deteriorate will eventually detract from the Army’s readiness posture. In many cases, property underutilized during peacetime is property that may become critical during times of national crisis. During a general mobilization, for example, active Army installations could be required to rapidly expand to accommodate the influx of National Guard and Army Reserve soldiers who come to train and to prepare for deployment. Likewise, facilities used for Army acquisition purposes may need to expand when research, development, and procurement activities are accelerated. If the Army must expand into facilities that require renovation and rebuilding, that expansion will be delayed or inhibited. Allowing peacetime use of currently under-
utilized facilities by private entities could help ensure their readiness for the Army in times of need.

Allowing underutilized facilities to deteriorate affects readiness in another way. When maintenance is disregarded, the cost associated with owning deteriorating property is not avoided—it is merely deferred. The facilities will need repair or removal at some point in the future, and potential environmental and safety hazards associated with deteriorating facilities could increase future rehabilitation costs. In these cases, the costs associated with neglected facilities will affect both future Army budgets and future readiness.

**Leveraging Assets to Generate Revenue and Reduce Cost**

Public-private real estate partnerships can also be an important method for leveraging the Army’s property portfolio to improve revenue or reduce maintenance or other costs. As mentioned earlier, these partnering arrangements are not new at the federal level. For example, the U.S. Postal Service entered public-private real estate partnerships that developed valuable property it owned in New York City and San Francisco. In each case, the private partner developed the property and enhanced the facilities used by the Postal Service. The private partners also substantially expanded the facilities, found tenants, and now pay the Postal Service a portion of the collected rents (U.S. GAO, 1999c). The benefit to the Postal Service in both of these cases has been twofold: facilities have been renovated, and an income stream has been generated from what was once underutilized property.

The Armament Retooling and Manufacturing Support (ARMS) program is an example of an Army partnering program already producing tangible results in terms of lower facility maintenance costs and revenue generation. This program allows facility contractors to lease dormant facilities at Army ammunition plants to commercial enterprises. One recent evaluation of the program notes that “with the public sector investment in ARMS to date totaling $170 million, the Army has recovered $125 million and has resulted in over $2.1 billion in economic impact” (Open Enterprise, 1999).
Public-private real estate partnerships also provide a way for the Army to leverage resources otherwise unavailable to it. For example, the Residential Communities Initiative (RCI), the Army’s version of the Military Housing Privatization Initiative (MHPI), is a pilot program that allows contracts with private developers for constructing new housing and renovating existing quarters on four installations. In a traditional construction contract, the services of the developers would be paid for and the Army would assume ownership and maintenance of the new and renovated housing units. As a PPP, however, the developers provide much of the RCI’s funding. In return, they are guaranteed income from the projects for a number of years and may even gain ownership of the property in some cases. Additionally, the Army can provide loan guarantees, can provide loans at advantageous interest rates, or can even invest in the development companies.\(^6\) Although the Army is just beginning to use this legislation, the benefits of the program can be inferred from recent successes in similar development projects undertaken at Corpus Christi Naval Air Station and Country Manor in Everett, Washington,\(^7\) which are hoped to provide adequate housing for the increasing number of married soldiers with families.

Another obvious candidate for public-private partnerships is the Army’s industrial facilities. For instance, a private partner could install state-of-the-art production facilities in an effort to improve efficiency or could upgrade existing Army equipment. Similarly, Army laboratory facilities could be improved through partnerships with high-technology firms. A recent study found that 35 percent of the laboratories and 52 percent of the test and evaluation centers in the DoD are excess (U.S. GAO, 1998b). These facilities are used for research in a wide range of disciplines, including areas with obvious private analogs, such as electronics and aerospace. If the Army can find private partners willing to share the cost of developing and redeveloping these research facilities, the problem of excess property


\(^{7}\)For details on these projects, see the Military Housing Privatization Initiative Website, http://www.acq.osd.mil/installation/hrso/.
at these installations could be reduced, the Army would gain access to new research capabilities, and the value of its real estate holdings would be increased.

WHY ARE PPPs NOT USED MORE?

Despite these benefits, real property PPPs are not used more within the federal government generally and by the Army specifically. This indicates that there are issues and reservations associated with their use. We identify four such issues below and address the concerns.

The Army Is a Warfighter, Not a Realtor

A principal objection to the Army’s use of PPPs is the feeling that the Army is not in the “business of business”: its mission is to fight and win the nation’s wars, and that does not include managing private tenants and real property portfolios to create revenue. The concern has two parts; the first is that involvement in PPPs directly impinges on the Army’s core mission, while the second is that such involvement may support activities that have nothing to do with the core mission. We address each concern in turn.

As for the first concern, one of the main reasons for entering into PPPs in the first place is to allow the Army to concentrate on its core mission of preparing for and conducting combat operations. While the Army may not be in the “business of business,” it is in the business of real property maintenance whether it wants to be or not, but smart use of PPPs can reduce the Army’s role in real property maintenance. Using private developers whose core competency is in real property maintenance, development, and management can minimize the Army’s role in these functions and allow it to apply its energy and resources to its primary missions.

As for the second concern, issues may also arise from PPPs that do not on the surface look to support the mission of the Army. For instance, some of the contractors under facility-use contracts in the ARMS program are producing goods that do not directly benefit the Army mission (e.g., consumer products). However, the Army reaps substantial benefits from the fact that the commercial entities are operating on its installations. Such activities help maintain infra-
structure, enhance the local economic base that would support the installation in an emergency, and maintain a local workforce. Additionally, resources obtained through PPPs, in the form of either cash or in-kind services, are certainly of benefit to the Army.

Since some of the activities in real property PPPs may not have direct military utility, there is concern that less-desirable or disruptive activities could find their way onto Army property. Although such a concern is real, it can be addressed. For example, the Norfolk Willoughby land development case addressed it by listing businesses not allowed to lease Navy land. That list included such businesses as offtrack betting and adult bookstores and was circulated with the Request for Proposal (RFP). Similar guidelines can be developed, either directly on a case-by-case basis or through a “zoning” committee which ensures that only businesses consistent with Army functions be allowed on its installations.

**Competition with the Private Sector**

Another concern is that making Army real property available for commercial use and development raises the potential for unfair competition with the commercial sector. This concern is both practical and philosophical. We address each concern below, starting with the practical one. From a businessman’s standpoint, the Army enjoys certain advantages. First, assets in Army use are provided by the government and are not typically valued by the Army as a commercial entity would value them. Additionally, since Army property is federal property, it is not subject to the many local and state rules that apply to competing properties. Local zoning regulations are an example of a regulatory restriction that does not apply to federal property. If such advantages are exploited, the end result can be an unfair advantage in the competitive market.

While the concern about unfair competition is real, it may be addressed in several ways. In some cases, the PPP concerns a business for which there is no commercial competition. This is the case at the Military Ocean Terminal in Sunny Point, North Carolina. 

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8 Authority for the development of the Willoughby site fell under Public Law 102-190, section 2838.
Nontraditional Approaches to Collaborating and Partnering with Industry

News, 2000). There, an agreement between the commercial explosives industry and the Army allows for the commercial shipment of explosives through the port. In return, the Army earns revenue, gets upkeep for the facility, and gives its terminal operators experience in doing the hazardous work. Competition is not a big issue because of the extreme limitations put on the shipment of explosives through commercial U.S. ports. The alternative to shipping through Sunny Point is for the commercial firms to ship explosives to Canada and then use ground transportation to get them to the United States. However, the lack of alternative unloading points in the United States makes a virtual nonissue of unfair competition in this case.

Other PPPs will concern businesses that are doing business with the Army or federal government. Defense contractors may wish to locate office space, laboratories, and production facilities on Army property to be nearer to their customers. This already occurs to a limited extent, and PPPs could greatly expand this practice. While competing non-Army facilities may be available nearby, the use of government property by businesses working for the government can reduce product and service costs to the government. This makes a strong case for these kinds of PPPs.

Most of the potential PPPs are cases where commercial alternatives exist and the potential user of Army real property does little business with the Army. For these types of potential PPP, rules and guidelines for evaluating the “fair market value” of assets offered by the Army must be issued and enforced. But these guidelines must be flexible enough to take into account changing market conditions (for example, the effects of zoning or the sometimes rapid changes in real property values that accompany local economic changes) and alternate property uses.9 Maintaining a requirement and mechanism for conducting fair-market-value assessments should temper concerns that the Army is using its property noncompetitively.

910 U.S.C. 2667 already requires fair-market assessments. Currently, when the Army wishes to lease real property, the Army Corps of Engineers conducts an assessment to determine the property’s fair market value. The regulatory framework for conducting these assessments may need to be reexamined. For example, current regulations (32 C.F.R. 644.41) require that the assessed value be based on “highest and best use.” This requirement may be somewhat inflexible and could result in bureaucratic rejection of otherwise worthwhile projects.
Beyond the practical concern discussed above, there is also a philosophical concern about the government even being involved in the private sector in this capacity. Clearly, an argument can be made that the government has no role, other than a regulatory one, in the commercial marketplace. The source of this belief is based to some extent on the unfair advantage issues raised above. However, perhaps a more important fear is that government entry into commercial enterprises creates conditions that promote corruption. Constructing a transparent and open process for developing PPPs is therefore essential. Involving the political process can provide governance for PPPs, but exposing the agreements to the public will help to both disseminate the public good of the partnerships and ensure an adequate public approval and sufficient public scrutiny.

Bypassing the Political Process

For PPPs to have much of an impact, there must be significant use of public assets by the private sector. The more extensive this use, the more PPPs move into the political realm. Contradictorily, the more discretion that is allowed at the local level, the likelier it is that PPPs will be successful. This naturally raises a concern that in developing tools for implementing PPPs, attempts will be made to provide as much discretion as possible to the local level, while bypassing the political process. This concern can be addressed only by carefully balancing the need for local discretion with requirements to address political concerns. Various safeguards are installed in current partnering tools to ensure that the political process is heavily involved in forming PPPs. For example, there are already congressional notification requirements for 10 U.S.C. 2667 leases. These include an annual report to Congress detailing all new leases and changes to existing leases, as well as notification of intention to lease in certain cases or to spend lease receipts that are valued above a minimum threshold. Providing detailed guidelines with flexible partnering tools is also necessary, but carefully balancing local discretion with congressional oversight will continue to be the best method of addressing any political process concerns.
Security at Army Installations

Engaging in PPPs with Army assets implies that more people outside the military will have access to Army bases, thus raising security concerns. While this is a legitimate concern, there are already mechanisms in place that deal with this issue. Many, if not most, Army posts are already open to the public to provide access to facilities such as museums, clubs, or golf courses. Areas that require security are simply closed to the public. Other measures that are currently employed for security, such as registration of vehicles, could be expanded to the additional workforce. Perhaps the best way to address this concern is to understand that security must be a part of any installation’s real property PPP plans.10

HOW SHOULD PPPs BE DEVELOPED?

Given that PPPs have numerous benefits and assuming that the legitimate concerns they raise can be adequately addressed, the next issue has to do with how to develop them within the Army. This entails three activities: (1) generating appropriate ideas for PPPs, (2) valuing them effectively, and (3) deciding on the mechanism to actually develop them. We discuss each of these activities below.

Generating Appropriate Ideas for PPPs

Until now, the Army has used an ad hoc approach for finding public-private real estate partnering opportunities. By ad hoc, we mean a generally passive approach in that the Army staff neither encourages partnership ideas nor provides resources to develop ideas that may evolve. Instead, entrepreneurial officials at installations, sometimes with local community support, must conceive of and develop ideas independently and forward these up a generally unenthusiastic chain of command. Development of these ideas takes time and resources that are hard to come by at the local level. Additionally, and as we shall discuss further on, restrictions with the existing outlease statute impede business arrangements with potential tenants. When

10In another vein, the fact that military installations are so secure may even be made into an asset for PPP purposes by attracting commercial firms that value the added security associated with military bases.
the low level of Army staff enthusiasm is combined with a lack of resources for real property business development and a legal structure biased against partnering, it is not surprising that few PPP real estate ideas have surfaced or been completed.

To date, only Fort Sam Houston’s and Picatinny Arsenal’s partnership plans have progressed very far. Fort Sam Houston’s plan to develop several large buildings with a private partner has moved to the point where a developer has been selected and work may begin soon, though this progress has been several years in the making. Plans for leasing and developing three small- to medium-sized buildings at Picatinny Arsenal, New Jersey, are also under way. Congress has been notified and a solicitation has been drafted, although it has not yet been issued. Other projects in the queue include the construction of a contractor support facility at Fort Leonard Wood, Missouri, the development of a hot-weather test track at Yuma Proving Ground, Arizona, and the lease of manufacturing equipment and facilities at Rock Island Arsenal, Illinois. Developing an airfield at Fort Hood is also funded and under way, but this project is not a PPP in the sense we mean, since funding for the project is public, though not Army, money.11

The primary reason cited for the current “go-slow,” ad hoc approach to Army public-private real estate partnerships is that congressional support is tepid and cautious. To overcome congressional resistance, Army Staff personnel believe it is very important to ensure that every proposed project be unambiguously legal and have consensus agreement within the Army. By this rationale, the task of testing the legality of various concepts, creating the business case, and developing support within the Army has taken a great deal of time and effort that should not be squandered by advancing more projects than could be adequately handled before the success of these partnerships has been shown.

While there is some merit to this argument, using the ad hoc approach described above risked missing the best ideas and potentially supporting others that are marginal from a business standpoint. Thus, we recommend a more proactive approach. It starts with the

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11 The Texas Department of Transportation and the Federal Aviation Administration are both providing funding for this project.
premise that there are many good ideas for PPPs being discussed at the installations and that, if tasked, the Army would end up with an impressive list of candidates. This list could then be winnowed down to several of the best ideas, which could be the basis for expanding the Army’s use of public-private real estate partnerships.

The critics of this solicitation approach argue that the installations are not well versed in financial matters and would not be able to identify a good idea. We believe that the installations are either savvy enough to be aware of their potential winners or could develop the business sense required to make wise business decisions concerning public-private real property partnerships. This is particularly so if commanders have the tools, such as valuing guidelines (discussed in the next subsection), and the resources to follow up and determine the efficacy of various ideas.

Additionally, if the Army were to adopt a more proactive approach to public-private real property partnerships, we would anticipate a more formal approach at the Army Staff level that would provide additional guidance and training for installation commanders and their staffs. The guidelines and training would focus on providing direction about the types of businesses that would be compatible with Army real property, on developing innovative real property partnership tools, on developing installation property management offices, and on helping installations build sound business approaches.

Providing this level of guidance and assistance requires resources, but the payoff seems worthwhile. By using the proactive solicitation approach, the winning concepts would be pushed forward, and because the probability of getting good ideas increases, it becomes easier to obtain congressional approval. As more winners are implemented, the process should gain momentum and support, both within the Army and with Congress.

**Valuing PPPs in Relation to Army Installations**

For PPPs to be most successful, installation commanders should work with real estate developers. Since the bases must continue to support their military missions, commanders and other installation officials must work with private real estate developers to help them
appreciate the unique missions and requirements of Army installations. However, the Army personnel must also be able to recognize their installation’s potential private market value in light of the unique missions and requirements the military places on the property. This requires Army personnel responsible for real property PPPs to be able to understand the value of their installation from the perspective of potential private partners who are considering investing in it.

To help establish an appropriate mindset for evaluating Army property, there are numerous sources of data and information that should be consulted when writing proposals and negotiating with private developers. For example, local chambers of commerce, local and state governments, real estate organizations, and various industry associations typically maintain the sort of information that can greatly help in developing value indicators, business plans, and development schemes.

In this subsection, we discuss value indicators for evaluating real property PPPs. We then illustrate the concept with a short case example of Picatinny Arsenal.

**Value indicators for real property PPPs.** Real property partnerships between the Army and private developers depend heavily on the match between the local community’s needs and the assets available on the installation. Fortunately, the history of public-private agreements in other government agencies provides several guidelines for the Army to follow when considering whether private development may be appropriate for a particular location. Based on a number of case studies, existing RFPs, and other sources, the following value indicators should be considered when evaluating real property partnerships.12

- **The quality of the local community.** A thorough evaluation of local economic and demographic conditions will provide impor-

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12 Case studies include National Park Service agreements for the development/renovation of historic buildings, Department of Veterans Affairs ventures for leasing land for office construction, and U.S. Postal Service leasing of commercial office space to private developers in desirable urban areas. Detailed case studies from each of these agencies are included in U.S. GAO (1999c). Army-specific ventures such as the ARMS and RCI programs are also instructive.
tant details about growth prospects, emerging industries, and likely responses from the private sector.

- **Mission of the installation.** The installation’s mission must be considered to determine how and what kind of real property partnerships will fit within that mission.

- **Available capacity.** Available capacity should be identified by a real property assessment at every installation. That which is least critical to the Army's mission should be targeted for real property PPPs.

- **Criteria for success.** Determining Army goals when deciding whether to pursue real property PPPs is critical. Goals are an essential part of planning, negotiating, evaluating, and managing PPPs. Nonexistent or vague criteria for success will only hamper the development of PPPs.

- **Potential uses.** Based on these first four stages, the most promising matches between local private-sector demands, available Army facilities, and Army goals can be identified and pursued.

Table 2.1 summarizes these value indicators and provides some more specific detail about relevant questions and relevant variables.

**A case study of Picatinny Arsenal.** We use Picatinny Arsenal, located in northern New Jersey, to illustrate the potential for real property PPPs. As a case study, Picatinny Arsenal has two advantages. First, personnel there have aggressively pursued both R&D PPPs—including Cooperative Research and Development Agreements (CRADAs) and Patent Licensing Agreements (PLAs)—within an innovative technology transfer center, and, more recently, real property PPPs. Arsenal officials are soliciting developers and taking the bureaucratically required steps to partner with the private sector.

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13The following list of organizations is an example composite of the types of entities that should be consulted when considering an installation’s potential for a successful PPP. These organizations provided useful information on the Picatinny Arsenal case study: Morris County Chamber of Commerce; New Jersey Economic Development Authority; Picatinny Technology Transfer Programs; Picatinny Technology Innovation Center; and New Jersey Chapter of the National Association of Industrial and Office Properties.
### Table 2.1
Value Indicators for Assessing Potential PPPs

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Relevant Question(s)</th>
<th>Relevant Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of local community</td>
<td>What are the relevant economic and demographic conditions in the community?</td>
<td>Projected economic growth&lt;br&gt;Projected employment growth&lt;br&gt;Projected growth industries&lt;br&gt;Projected population growth&lt;br&gt;Projected labor force growth&lt;br&gt;Average education&lt;br&gt;Office/industrial vacancy rates&lt;br&gt;Price/square foot of office space&lt;br&gt;Distance to metropolitan area&lt;br&gt;Major local university&lt;br&gt;Major local employers&lt;br&gt;Special development incentives</td>
</tr>
<tr>
<td>Quality of installation</td>
<td>What are the installation’s major land, construction, and infrastructure assets?</td>
<td>Buildings&lt;br&gt;Type of service conducted&lt;br&gt;Equipment&lt;br&gt;Available workforce&lt;br&gt;Land&lt;br&gt;Utilities</td>
</tr>
<tr>
<td>Available capacity</td>
<td>How can current installation assets be consolidated, relocated, or restructured to accommodate a PPP?</td>
<td>Buildings</td>
</tr>
<tr>
<td></td>
<td>What military assets can be used for the PPP?</td>
<td>Dual-use equipment</td>
</tr>
<tr>
<td>Criteria for success</td>
<td>Is the PPP in consonance with the installation’s military goals?</td>
<td>Army mission at installation</td>
</tr>
<tr>
<td></td>
<td>Are there other benefits to the PPP?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does the PPP meet the criteria for success as outlined by the February 1999 GAO report?</td>
<td>Catalyst for change&lt;br&gt;Statutory basis exists&lt;br&gt;Detailed business plan&lt;br&gt;Coherently organized structure&lt;br&gt;Stakeholder support</td>
</tr>
<tr>
<td>Potential uses for installation assets</td>
<td>What types of private enterprise should be encouraged to engage in a PPP?</td>
<td>Qualities of potential businesses should be consistent with installation assets capabilities</td>
</tr>
</tbody>
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about some real property on the arsenal. The proposed actions are somewhat limited and, thus, provide some perspective concerning the Army’s current approach to PPPs.

The second reason for using Picatinny as a case study is that intuition indicates that it ought to be a prime candidate for more substantial real property PPP development. It is located in a relatively densely populated area where the economy is strong. It is near a large city, and, because of workforce reductions over the last decade, it would seem to have assets available for development. Testing our intuition is a matter of applying the value indicators developed above and detailed in Table 2.1.

**Quality of local community.** An initial assessment of the local community’s demographics and economic situation supports the idea that Picatinny Arsenal is a good candidate for the development of real property PPPs.

Picatinny Arsenal is located in Morris County, New Jersey, 28 miles west of New York City and 60 miles north of Philadelphia. Morris County is one of the region’s least densely populated areas, but it has become increasingly suburban in recent years. Existing development consists of corporate headquarters, business parks, R&D laboratories, and even agricultural operations in the western part of the county. The county’s highly educated labor force, efficient transportation infrastructure, and high quality of life reflect the primary benefits for attracting businesses. The highly skilled population of the county should draw high-paying, white-collar jobs from companies seeking to relocate from major metropolitan areas such as Newark or New York City, while the availability of vacant land and relatively low cost of living should allow existing local business enough room for expansion. Morris County has also been designated as one of New Jersey’s three Foreign Trade Zones, which allows companies to defer duty payments on imported goods. Finally, the county offers generous tax credits for attracting new development and regularly provides detailed economic and demographic projections in *Morris County’s Electronic Factbook*.

**Quality of installation.** In addition to being well located, Picatinny Arsenal itself appears attractive from a development standpoint. The arsenal contains a diversity of assets that complements its primary
mission of armament research and engineering. There are over 1,000 buildings and structures at Picatinny, which includes numerous laboratories, office space, storage facilities, a museum, a conference center, two restaurants, and residential housing. Its extensive transportation and utility infrastructure exceeds the quality of many business parks. Over 3,000 employees work on a range of projects, including ballistics, advanced propulsion, and environmental sciences. Picatinny also contains a technology-transfer center for licensing Army technology to private companies for dual-use projects, with over 20 tenants currently engaged in CRADAs. The Picatinny Technology Innovation Center serves as one of six business incubators in New Jersey and provides training, administrative, and information technology support to start-up companies. In general, Picatinny offers a comprehensive support network for virtually any business seeking to expand its current operations or simply to relocate to more desirable surroundings.

**Available capacity.** The buildings on Picatinny’s land can benefit both private and Army interests.

The availability of some buildings for outlease is indicative that recent workforce reductions have resulted in substantial excess interior and exterior space at Picatinny. Making the best use of this available capacity, both as it serves arsenal functions and in terms of its development potential for real property PPPs, would be the goal of a commander who proactively pursues real property PPPs. The process to achieve this goal would start with an evaluation, both by type and by quantity, of the essential real property requirements for Picatinny’s mission. Based on this evaluation, consolidating and optimizing Army use of the arsenal, while making contiguous blocks of property available for commercial development, should enhance Army goals and improve the arsenal’s development potential. For instance, government operations could be concentrated in a “downtown” area, opening up other developed parts of Picatinny Arsenal to real property PPPs.14

**Criteria for success.** Criteria should consider and measure the economic, operational, and community benefits that the installation, its

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14In contrast, the current proposal offers to lease several relatively small, separately located buildings.
surrounding area, and the private partner can gain through a well-designed partnership. Criteria should be quantitative to the extent possible, but it is likely that many important indicators of success are, at best, measured subjectively. It is also important to note any “show-stoppers”: categories of partnerships that will not be allowed, regardless of criteria such as economic benefit. The success criteria below are pulled from the Picatinny Arsenal’s current Request of Application of Leasing. Suggested metrics are included.

- Utilize Picatinny assets consistent with the requirements and mission of U.S. Army Tank-automotive and Armaments Command—Armament Research Development and Engineering Center (TACOM-ARDEC) and its collocated customers.  
  **Metric:** Occupancy rates and subjective evaluation of tenant relevance to Picatinny/Army requirements and missions.

- Provide state-of-the-art facilities for the Army.  
  **Metric:** Value of new construction and installed equipment.

- Provide good stewardship of the real assets located on the installation and, to the extent possible, defray installation operating costs.  
  **Metric:** Value of maintenance provided by tenants, real property maintenance back orders, and resources available to Army-maintained property.

- Provide Picatinny with access to technology that will assist in mission accomplishment.  
  **Metric:** Number of CRADAs, PLAs, and R&D contracts with tenants.

- Maintain positive relations with the communities surrounding the property.  
  **Metric:** Primarily subjective, but can be roughly evaluated with things like number of meetings with local government officials and chamber of commerce members, local awards given, positive news stories in the local papers, etc.

- Successfully integrate development activities with cultural resources and environmental policy management requirements in support of the mission of Picatinny.
Metric: Value of resources available for environmental remediation; quantitative measures of environmental impact from tenant activities.

- Provide an opportunity for a reasonable return for the Army and the developer.
  Metric: Total value of leases and developer profit margin.

Potential uses of installation property. Based on an initial, and admittedly cursory, look at the value indicators as applied to Picatinny Arsenal, office-like functions such as back office support for health maintenance organizations, check processing for local banks, and telemarketing operations are all potentially valuable partnering activities. State and local government agencies seeking to expand or relocate their office space may also be potential tenants.

Picatinny’s network of transportation resources, proximity to large population centers, and available space make solid and liquid storage attractive. Combining storage space with one or more of the available office buildings also makes extensive shipping/distribution operations for a local retailer or manufacturer an option.

Surprisingly, laboratory and manufacturing facilities appear less valuable because of expected local reductions in these industries. Exceptions here may be R&D partnerships in precision optics, X-ray technology, and paints/coatings. These growing fields appear appropriate to the area and offer potential dual-use technological capabilities for the Army.

Table 2.2 updates Table 2.1, including a column reflecting the applicability of the value indicators to Picatinny.

Choosing Mechanisms to Develop PPPs

Once there is a decision to proceed with a real estate PPP, there is the question of which mechanism, or tool, to use in developing it. The DoD has a number of tools for public-private real estate partnerships; these primarily include leases, facilities-use contracts, and special legislation. Leasing is a general, albeit limited, authority that applies to all Army property. Facility-use contracts are typically used
Table 2.2

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Relevant Question(s)</th>
<th>Relevant Variables</th>
<th>Application to Picatinny</th>
</tr>
</thead>
</table>
| Quality of local community    | What are the relevant economic and demographic conditions in the community? | Projected economic growth
Projected employment growth
Projected growth industries
Projected population growth
Projected labor force growth
Average education
Office/industrial vacancy rates
Price/square foot of office space
Distance to metropolitan area
Major local university
Major local employers
Special development incentives | 0.4% local and 11.4% state
27,000 new jobs expected (1998–2006)
Business, health industries
8.4% local and 5.4% state
8.6% local and 7.3% state
87% high school; 37% college
9.7% office and 6.4% industrial
$26/square foot class A space
28 miles west of NYC and 60 miles north of Philadelphia
Drew, Fairleigh/Dickson
ATT, Lucent, Warner Lambert
Designated foreign trade zone; local tax credits |
| Quality of installation       | What are the installation’s major land, construction, and infrastructure assets? | Buildings
Type of service conducted
Equipment
Available workforce
Land
Utilities | Over 2.7 million square feet
Science and engineering (S&E)
Lab and engineering
Over 3,000, mostly for S&E
Over 6,000 acres
Excellent road, rail, and air transport |
Table 2.2—continued

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Relevant Question(s)</th>
<th>Relevant Variables</th>
<th>Application to Picatinny</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available capacity</td>
<td>How can current installation assets be consolidated, relocated, or restructured to accommodate a PPP?</td>
<td>Buildings</td>
<td>Office, labs, and computing facilities can be consolidated</td>
</tr>
<tr>
<td></td>
<td>What military assets can be used for the PPP?</td>
<td>Dual-use equipment</td>
<td>Office buildings, lab, and warehouse space</td>
</tr>
<tr>
<td>Criteria for success</td>
<td>Is the PPP in consonance with the installation’s military goals?</td>
<td>Army mission at installation</td>
<td>Home to TACOM-ARDEC; PPP not inconsistent with mission and can assist in meeting noncritical needs</td>
</tr>
<tr>
<td></td>
<td>Are there other benefits to the PPP?</td>
<td></td>
<td>Environmental remediation &amp; revenue</td>
</tr>
<tr>
<td></td>
<td>Does the PPP meet the criteria for success as outlined by the February 1999 GAO report?</td>
<td>Catalyst for change</td>
<td>DoD Directives in place</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Statutory basis exists</td>
<td>10 U.S.C. 2667</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Detailed business plan</td>
<td>In progress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coherently organized structure</td>
<td>In progress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stakeholder support</td>
<td>Local community/private sector involved</td>
</tr>
<tr>
<td>Potential uses for installation assets</td>
<td>What types of private enterprise should be encouraged to engage in a PPP?</td>
<td>Qualities of potential businesses should be consistent with installation assets capabilities</td>
<td>Available office space/equipment can fulfill variety of uses; labs useful for private R&amp;D</td>
</tr>
</tbody>
</table>
in specific circumstances and special legislation normally applies to individual programs or installations.

Leases

The leasing authority granted to the Army by 10 U.S.C. 2667 allows the Secretary of the Army to lease nonexcess real property to private entities. Traditionally, these leases were used for agricultural and grazing purposes, for antenna sites, and for morale, welfare, and recreation (MWR) facilities. More recently, there have been some efforts to lease facilities on a limited number of Army bases to other types of businesses. To date, however, such efforts have been limited by restrictions associated with the statutory leasing authority (10 U.S.C. 2667) cited above. For example, only 50 percent of rents, when provided in cash, are returned to the leasing Army facility. The remaining 50 percent is used more generally by the Army in support of other facilities. More important, perhaps, Army use of received rent payments was through the standard appropriations process, which effectively diluted any advantage this money would otherwise have given to the Army. Rents, though, could also be provided “in-kind.” This means that lessors could provide maintenance, repair, and real property improvement services in lieu of paying cash rent. The limitations on in-kind payments were that they had to be performed on the rented property, and new construction was not permitted. An additional limitation of 10 U.S.C. 2667 was an allowable lease term of only five years, a term length inappropriate for many business leases.

The 2001 defense appropriations bill, H.R. 4205, which was recently enacted, amends 10 U.S.C. 2667 in Section 2812. While hopes that Congress would greatly expand the Army’s leasing authority were not met, Congress did somewhat improve the statutory incentives encouraging the Army to lease its underutilized property. Most important, in-kind consideration for leased property can now include new construction. Additionally, in-kind consideration is no longer limited to the leased property, although Congress must be informed if the value of in-kind consideration for a lease exceeds $500,000.

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15For example, the lease period remains limited to five years, and cash receipts must still be deposited in a special account to be spent through the appropriations process.
Facilities-Use Contracting

Facilities-use contracts are an additional tool available to the Army for keeping otherwise underutilized resources productive. Under Federal Acquisition Regulation (FAR) part 45, a private entity contracted to work for the government can, under certain conditions, use government facilities to fulfill contract obligations. The private contractor operating a government facility is also entitled to provide the same facilities, real estate and equipment, to its subcontractors. The Army maintains a level of control over the nature of these subcontracts by requiring its facilities’ contractors to obtain Army authorization for each of the subordinate use agreements.

The Army achieves two main benefits from facilities-use contracts: overhead costs are better allocated, thus improving unit price, and maintenance costs are offset or reduced. The private partner may earn income as a result of the work being done at the facility, and may also avoid equipment purchasing costs.

The Anniston Army Depot (ANAD) has successfully employed facilities-use contracts in its partnering activities. Facilities-use contracts are also the contracting mechanism between the Army and the facility contractor in the ARMS program, thus allowing ammunition plant facility contractors to sublet underutilized facilities to other commercial ventures.

Special Legislation

In some cases, the restrictions inherent in 10 U.S.C. 2667 lease legislation have invited direct appeals to Congress. Typically, enthusiasm for PPPs on specified installations is first promoted locally. Once the affected military department, the local political leadership, and the business community come to general agreement about the broad framework of the proposed PPP, specific legislative language is drafted, lobbied for, and introduced into one of the defense funding bills. The advantage to this approach is that it codifies the PPP as a

16From the Anniston Army Depot Web site: “Facility Use Programs—Agreements wherein public and private entities use ANAD facilities available as underutilized by ANAD operations under the authority of Federal Acquisition Regulation (FSR) Subpart 45 and the Army’s Supplement to the FAR.” http://www.anad.army.mil/Partner.htm.
law and can be as specific as necessary. But special legislation is clearly limited, since it usually applies only to specific installations and programs, and significant political capital must be expended for each PPP advanced in this manner.

Examples of recent special legislation enacted for the benefit of a specific installation are Brooks Air Force Base in Texas and the Ford Island complex at Pearl Harbor, Hawaii. The legislation in these cases authorized the development of installation property according to a plan introduced as part of the legislation. Each of these programs was promoted locally and through the affected congressional delegations.

The tools available to the Army for the implementation of real property PPPs are limited. Despite this, there are examples demonstrating that these tools, used diligently and imaginatively, offer opportunities to create more PPPs with Army real property.

**PPPs IN CONCLUSION**

Absent a very significant Base Realignment and Closure (BRAC) round, the U.S. Army is likely to maintain real property that is excess to its current needs and its current maintenance abilities. Since such a BRAC is highly unlikely, it is important that the Army find ways to manage and maintain the property that it will continue to hold. PPPs are one means of putting the Army's property to good use and in a manner that provides the additional resources necessary for the effective stewardship of the vast holdings entrusted to the Army. Though there are a number of significant issues associated with PPPs on military property, we believe that all of them are solvable. More important, making the establishment of PPPs Army policy, rather than the exception, should greatly expand both the quality and quantity of PPP proposals.