November 2021

Perspective
EXPERT INSIGHTS ON A TIMELY POLICY ISSUE

TIFFANY BERGLUND, DAVID SCHULKER, TRACY C. KRUEGER, NELSON LIM

Improving the Goal-Setting Process for U.S. Department of the Air Force Recruiters

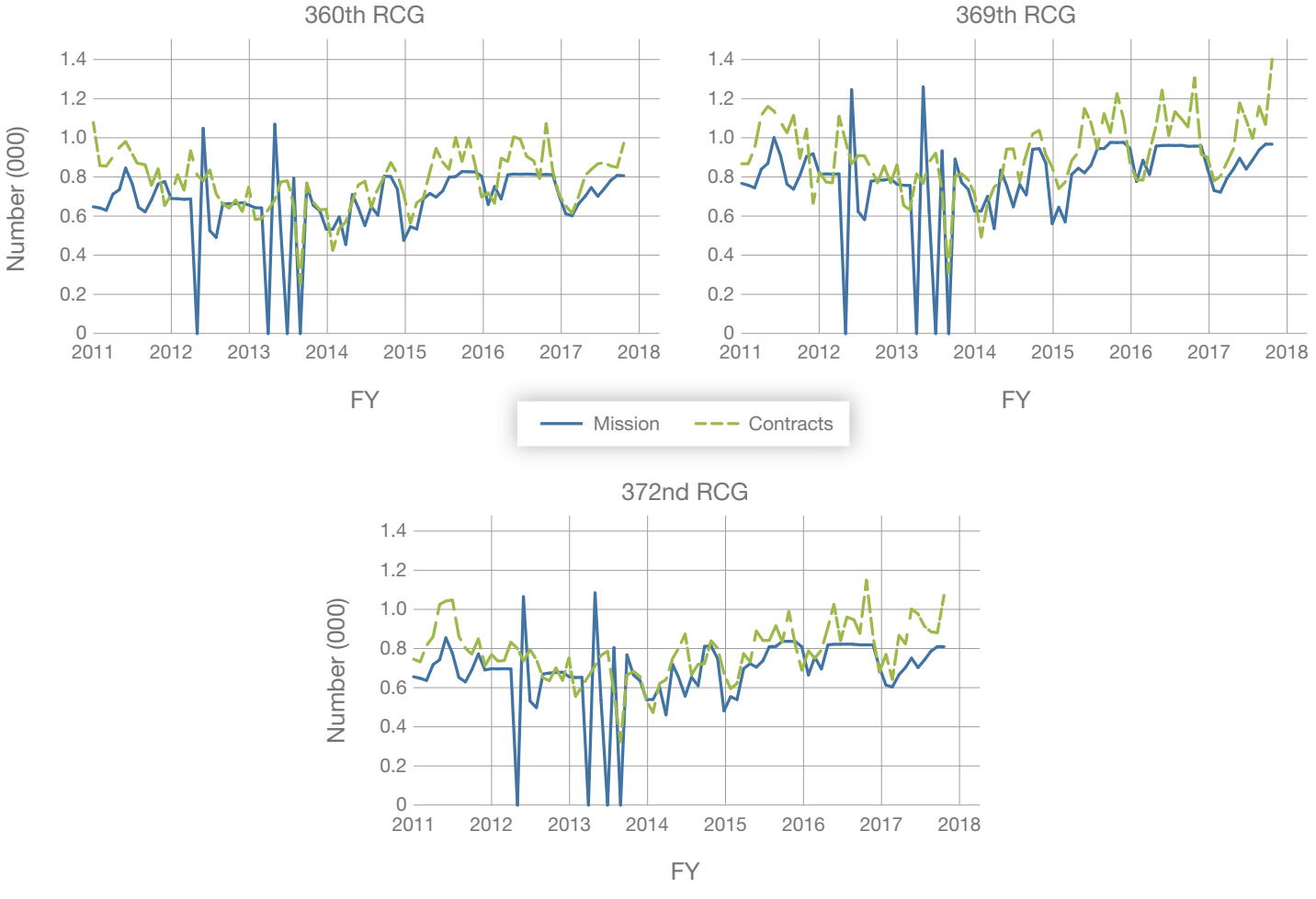
Every year for the past two decades, the U.S. Department of the Air Force (DAF) has successfully met its overall recruiting goals. However, DAF's simple goal-setting process does not account for all the factors and different environments in which individual recruiters do their jobs. Research has shown that recruiters are overworked, but we found that some are also undergoaled. As a result, some recruiters have to work harder than others to meet their goals, which suggests that goal-setting could be more efficient and equitable if it took more factors into consideration.

DAF's recruiting has not missed its fiscal year (FY) enlisted contract goals since FY 1999, and the three DAF recruiting groups (RCGs) have met or exceeded their mission goals since FY 2011 (see Figure 1).[1] However, the fact that the RCGs have been meeting the goals does not prove that the goals match recruiting capacity; recruiters might just be adjusting their effort to meet the targets. If goals are consistently too low or too high, a recruiter might expend less effort, either because

RAND CORPORATION

FIGURE 1

Recruiting Groups Have Generally Exceeded Mission Goals in Recent Years—Goals and Contracts, FYs 2011 to 2018



additional production is unnecessary to meet standards or because the standards are unattainable under any level of effort.

In addition, determining the appropriate goal for each segment of the recruiting enterprise is very challenging in practice because the planner must account for a variety of local and environmental conditions (e.g., local unemployment rates, demographics).

The U.S. Air Force Recruiting Service (AFRS) is concerned that its goal-setting process might negatively influence recruiter production and morale because its current process does not account for any direct measures of recruiting difficulty in the local recruiting markets. Given that the DAF encourages its force to seek opportunities to maximize resource efficiencies (Air Force Policy Directive 90-6, 2019), goal-setting at the detail level that takes local conditions and resources into account could improve recruiter workloads and morale and maximize the efficiency of DAF's recruiting efforts. This Perspective summarizes an analysis of the DAF's goal-setting process; explores whether using a model that incorporates additional recruiting resources would produce better, more reasonable goals for recruiters than using historical data alone; and suggests opportunities to improve the productivity of the recruiting enterprise.

How Does the U.S. Department of the Air Force Set Recruiting Goals?

AFRS organizes its enlisted recruiters into three main RCGs, each of which includes eight recruiting squadrons that are made up of seven to nine flights of recruiters.[2]

Abbreviations

AFB	Air Force base
AFRISS	Air Force Recruiting Information Support System
AFRS	U.S. Air Force Recruiting Service
ARB	Air Reserve base
DAF	U.S. Department of the Air Force
EAD	enter active duty
FY	fiscal year
IEB	initial enlistment bonus
JRB	joint reserve base
NEC	new enlisted contract
QMA	qualified military available
RCG	recruiting group
RCS	recruiting squadron

Each recruiting squadron and its subordinate flights are assigned a geographic area of responsibility, and any new recruit that has a home address in that area of responsibility will count toward the goal for that unit.

AFRS provides two types of monthly goals to the groups and provides them with recommended goals for squadrons. These goals specify the total number of new recruits that AFRS needs from the groups and squadrons, and unlike other services, the DAF does not differentiate goals by whether recruits possess a high school diploma or by test scores. The two types of goals include the number of NECs and the number of recruits who EAD. When new recruits sign a contract, there is a waiting period before they "ship" to basic military training. Some recruits drop out during this waiting period, so the EAD goal is lower than the NEC goal to account for this attrition. RCGs face

both NEC and EAD goals, but squadrons, flights, and recruiters only face NEC goals.

AFRS begins with the total accession requirement and then calculates goals for each group and squadron proportionally based on the group's five-year production averages. For instance, if the 360th RCG had provided 30 percent of total recruits from FY 2013 through FY 2017, the group would then be allocated 30 percent of the goal for FY 2018. The recommended goals for the squadrons that fall under the 360th RCG would then receive proportions of the group's goal according to their respective five-year production averages. Groups have the freedom to deviate from the AFRS recommendations—for instance, to account for changes in posture of recruiters or recruiting conditions.

Goals based on historical production levels implicitly account for the fixed attributes of a locale that affect production but also include transient factors that could make them imperfect benchmarks for future production.

However, AFRS indicated that only one of the three RCGs had a history of modifying squadron-level goals using manning levels.

When squadrons receive their assigned goals from the RCGs, the squadrons then allocate goals to flights, which then assign goals to individual recruiters. The method of assignment at the squadron and flight level varies by squadron and flight. Historically, every formula that the squadrons use accounts for one or more of the following three factors unique to the squadron and/or flight: manning, historical production, and market. In this context, *manning* refers to the number of recruiters who are actively recruiting and available for an extended period (not in training, on deployment, etc.). *Historical production* is represented by the squadron or flight's five-year historical production average. *Market* is the number of high school seniors in the geographic location of responsibility. With this assignment process, recruiters typically receive goals of one to three NECs from their area per month, with the exception of a three-month grace period when a new recruiter arrives at a unit.

Goals based on historical production levels implicitly account for the fixed attributes of a locale that affect production but also include transient factors that could make them imperfect benchmarks for future production. For example, solely relying on historical production levels overlooks recruiter effort and the recruiting environment. A highly productive recruiter in a low-productivity zone may recruit more than their goal for their three years as a recruiter and, thus, contribute to an unattainable goal for subsequent recruiters in the flight who are not as productive. Similarly, a poor performer may bias subsequent goals in the opposite direction. On top of recruiter effort, using

historical production levels overlooks important levers that affect the recruiting environment, such as spending on advertising or enlistment incentives.

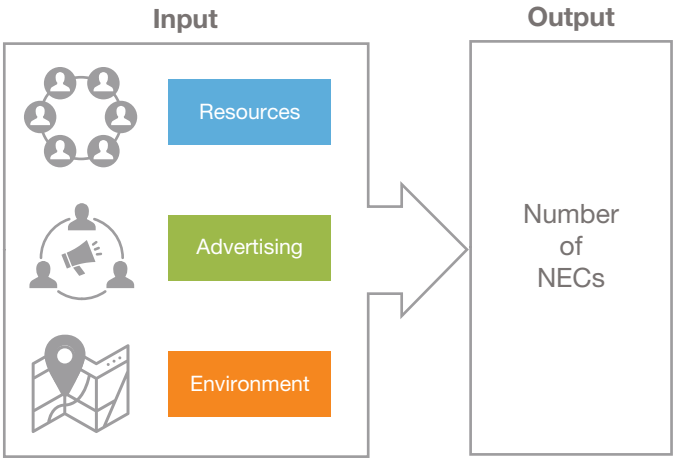
A way to address these history-based goal-setting limitations is to use a model that accounts for the transient factors, such as recruiting resources, so that they do not bias future recruiting goals. Although recruiting entities may not currently have an issue meeting their goals (as defined by historical production averages), alternative modeling approaches that consider additional factors (beyond prior performance in a region) may better reflect underlying recruiting potential. Specifically, alternative models could create more-equitable recruiting zones and improve recruiting efficiency.

A New Model Could Improve Goal-Setting Based on Historical Production

To examine potential improvements to AFRS's goal-setting approach, we explored a basic model of contract production. Such a model can inform goal-setting by relating historical measures of the recruiting resources and environmental factors in each locale to the number of NECs that recruiters produced (see Figure 2) rather than on historical production alone.[3] By accounting for recruiting resources explicitly, a production model can avoid producing biased goals for recruiters when future inputs differ from recent history. When the balance of recruiting resources shifts across locales, a model-based goal could perform substantially better than a goal that carries historical production forward.

FIGURE 2

Conceptual Design of Model-Based Goal-Setting Process



To understand how model-based goals could improve on current goal-setting processes, consider the example of an economic shock that affects a highly regionalized industry. An iron law of military recruiting is that labor market conditions strongly influence a recruiter's ability to produce contracts (especially high-quality contracts[4]) and that mission success is much more likely when unemployment is high (Warner, Simon, and Payne, 2001; Dertouzos and Garber, 2006; Knapp et al., 2018). An economic shock, such as a natural disaster or war, that increases unemployment in a particular region will elevate the productivity of recruiters in that region relative to others, but this change will not be captured in the recent five-year production average. Goals based on recent averages will be too low for the region affected by the shock, but goals based on a model that takes local unemployment rates into account

A more comprehensive model would account for the historical productivity of an area but would also factor in other recruiting resources, such as enlistment bonuses, recruiter incentives, advertising, and the market environment.

will be higher in the affected region to incentivize its recruiters to produce at their full capacity.

A more comprehensive model would account for the historical productivity of an area but would also factor in other recruiting resources, such as enlistment bonuses, recruiter incentives, advertising, and the market environment (Warner, Simon, and Payne, 2001; Asch et al., 2010; Pinelis et al., 2011; Knapp et al., 2018). Although the DAF does offer recruiter incentives, such as deployment exemptions and promotion considerations, the goal-setting model does not currently account for recruiter incentives because the DAF does not track individual recruiter incentive programs systematically. Similarly, even though the DAF spends one-third of its total resource costs on advertising annually ($71.2 million)—and prior research has shown that advertising is effective in U.S. Army contract production (Dertouzos and Garber, 2003)—the current application omits measures of advertising as a recruiting resource because the DAF does not capture historical advertising information at sufficient granularity.

The model assumes that the primary productive unit is a recruiting entity, such as a squadron or flight, that is equipped with resources, including a number of recruiters and an assigned goal, who are then facilitated (or hindered) by enlistment incentives and market environment.[5] This model does not represent a completely different approach but instead builds on goal-setting via historical missions by taking into account other recruiting resources while anchoring the estimates to historical mission. *Enlistment incentives* include advertised bonus eligibility and bonus amount. *Market conditions* include local unemployment rate and local eligible population, also known as qualified military available (QMA) population, defined as U.S. citizens ages 17 to 24 who are eligible and available for enlisted military service without a waiver. *Ineligibility* is based on recruit attributes in the following areas: (1) medical/physical, (2) weight, (3) mental health, (4) drug use, (5) conduct, (6) dependents, and (7) aptitude (Joint Advertising, Market Research and Studies, 2016).

The model estimates the number of monthly contracts produced given core resources, factors that enhance or reduce the effectiveness of the core resources, and unobserved factors for each recruiting entity. *Core resources* include a recruiting entity's number of recruiters, contract goals, and QMA population. *Enhancing factors* include

unemployment rate and bonus incentives. The core recruiting resource parameters are all positive, indicating that greater numbers of recruiters, higher historical contract mission, and larger eligible populations translate into higher production and goal-setting. Similarly, higher bonus amounts and bonus eligibility are associated with greater production and goal-setting. Conversely, lower unemployment rates make recruiting more difficult, which is associated with lower production. Although this negative association is counterintuitive, this result likely originates from the historical production trends post-2015, when the DAF increased total production amid improving economic conditions.[6] More information about the model and model estimation can be found in the box.

Recruiting Model Specification and Parameters

The functional form of the model is known as the Cobb-Douglas production function, which can be represented by the following:

$$Contracts = \left(CoreResource_1^{Parameter_1} \times CoreResource_2^{Parameter_2} \times CoreResource_3^{Parameter_3} \right) \times \exp\left(EnhancingFactor_1 + EnhancingFactor_2 \right) + \varepsilon.$$

This particular functional form captures two key elements of the real-world NEC production process. First, the functional form guarantees that a squadron with no recruiters, no eligible youth, or a goal of zero will produce no contracts. Second, recruiting resources, such as recruiters and goals, exhibit diminishing returns, with additional inputs producing progressively fewer outputs for the same base of eligible youth (Knapp et al., 2018). However, this model does not account for the issue of nonbinding supply and assumes that more resources always result in increases in contract production. Alternative models exist to tackle the complex issue of nonbinding supply, but we focused on a more basic model to demonstrate the benefits of model-based goal-setting.

We estimated the parameters of this model using monthly data from FYs 2011 through 2018 on each recruiting entity's number of recruiters, contracts, bonus offerings, external economic factors, and the local eligible population. We calculated the number of recruiters by recruiting entity using data files of the ZIP codes associated with each recruiter identification code, which AFRS provided. Data on historical contract goals and contracts, including when a contract was signed, when a recruit was scheduled to access, and when a recruit ultimately shipped, came from AFRISS Total Force. For the eligible population, we used the Woods and Poole estimates of QMA by ZIP code, which are based on U.S. Census Bureau population data. Local unemployment rates came from the Current Population Survey, which is a monthly household survey administered by the U.S. Bureau of Labor Statistics. Information on initial enlistment bonuses (IEBs) came from records on IEB policies describing bonus eligibility by specialty with the effective dates of each policy.

How Does Model-Based Goal-Setting Compare with the Current Goal-Setting Process?

To see how model-based goal-setting compares with the current goal-setting process, we compared the two approaches at varying recruiting organizational levels: group, squadron, and flight. In terms of contract recruiting resources, the five-year average levels from FYs 2014 through 2018 vary by RCG. As mentioned earlier, three RCGs cover the United States. As shown in Figure 3, the 372nd RCG covers the West and the northwestern portion of the Midwest (blue region); the 369th RCG covers the South and the southern portion of the Midwest (green region); and the 360th RCG covers the Northeast and a small eastern portion of the Midwest (orange region).

Group-Level Goal

Table 1 provides some basic descriptive statistics for production factors at the group level, including the total number of recruiters, the QMA, the unemployment rates, and the total bonus amount per IEB policy. The total number of recruiters stationed at each RCG varies from 330 to 372. The total varies by 13 percent—that is, from the RCG with the largest number of recruiters, the 369th RCG (South), and the RCG with the smallest number of recruiters, the 372nd RCG (West). However, when observing the total number of QMA, the 369th RCG had about 32 percent less QMA per recruiter than the 372nd RCG. Unemployment rates in the group-specific areas of responsibility ranged from 4.90 percent to 5.12 percent. The total bonus amount per IEB policy was highest for the 369th RCG (South), at $11.4 million, and lowest for the 360th RCG (Northeast), at $9.8 million.[7]

Table 2 shows that, at the group level, the model-based predicted goals do not differ from historical production averages by more than 6 percent. The model-based goals outpaced actual assigned goals for the three RCGs. For example, for 360th RCG (Northeast), the model-based goal for FY 2018 was 9,135 NECs, but the actual goal assigned, calculated by the five-year production average, was 8,653 NECs. On a per-recruiter basis, adopting a model-based process at the group level would have resulted in one additional contract per recruiter for each of the three groups.

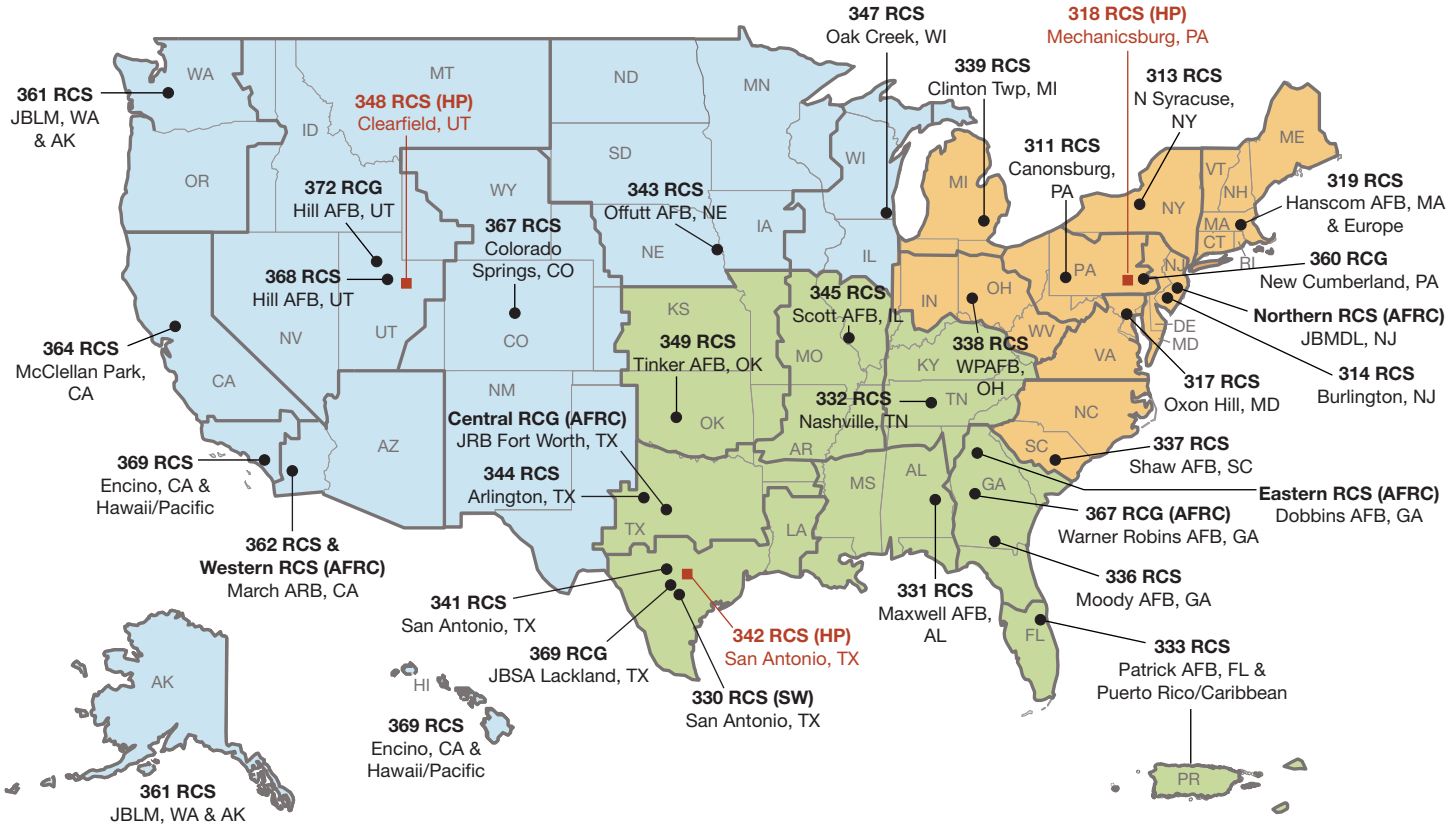
Squadron-Level Goals

The recruiting resources vary by recruiting squadron, as the violin plots in Figure 4 demonstrate:

- **Unemployment:** The average five-year unemployment rate across squadrons is 5 percent. Within each RCG, the median unemployment rate at the squadron level in the 360th RCG (Northeast) was 5.11 percent, 5.01 percent in the 369th RCG (South), and 5.15 percent in the 372nd RCG (West). The range of unemployment rates at the squadron level in the 372nd RCG (West) was larger than those for the other regions.
- **QMA:** The average number of QMA is 53,358 across recruiting squadrons. The 369th RCG's (South) squadrons had the lowest median QMA among the RCGs.
- **Recruiters:** Squadrons had an average of 44 recruiters between FYs 2014 and 2018, which results in an average of 1,213 QMA per recruiter. The 369th

FIGURE 3

Geographic Coverage of Recruiting Groups



SOURCE: Figure from AFRS, undated.

NOTES: AFB = Air Force base; AFRC = Air Force Reserve Command; ARB = Air Reserve base; HP = health professionals; JBLM = Joint Base Lewis-McChord; JBMDL = Joint Base McGuire-Dix-Lakehurst; JBSA =Joint Base San Antonio; JRB = joint reserve base; RCS = recruiting squadron; SW = special warfare; WPAFB = Wright-Patterson Air Force Base. This analysis focuses on active duty; the reserve bases are included for situational awareness.

TABLE 1

Recruiting Resources at the Group Level

Five-Year Average	360th RCG (Northeast)	369th RCG (South)	372nd RCG (West)
Recruiters	~360	~372	~330
QMA	41,535,988	33,578,192	39,462,200
Unemployment rate	5.12%	5.02%	4.90%
Total bonus amount per IEB policy	$9,824,885	$11,363,020	$10,652,836

TABLE 2

Actual FY 2018 Goals and Model-Based Goals at the Group Level

Type	FY 2018 Goals	360th RCG (Northeast)	369th RCG (South)	372nd RCG (West)
Goals per group	Actual	8,653	10,354	8,774
	Model-based	9,135	10,687	9,186
Goals per recruiter	Actual	24	28	27
	Model-based	25	29	28

RCG's (South) squadrons had the highest median of recruiters among the RCGs.

- **Bonuses:** The average bonus amount available to each recruiting squadron was approximately $1.33 million. The 369th RCG's (South) squadrons had the highest median total bonus amount among the RCGs.

This analysis shows that, in terms of recruiting resources, the 369th RCG's (South) squadrons, on average, have lower unemployment rates, a smaller number of QMA, a larger number of recruiters, and a higher bonus amount within its squadrons.

By examining goals assigned using five-year production averages and the goals estimated using the model-based goal-setting process described above, Figure 5 shows that, similar to the group results, the contract production capacity is generally greater than the actual goals. In FY 2018, annual goals for each recruiting squadron ranged from approximately 850 to 1,700 recruits. The red 45-degree line indicates where five-year production average goals are equal to contract production capacity.

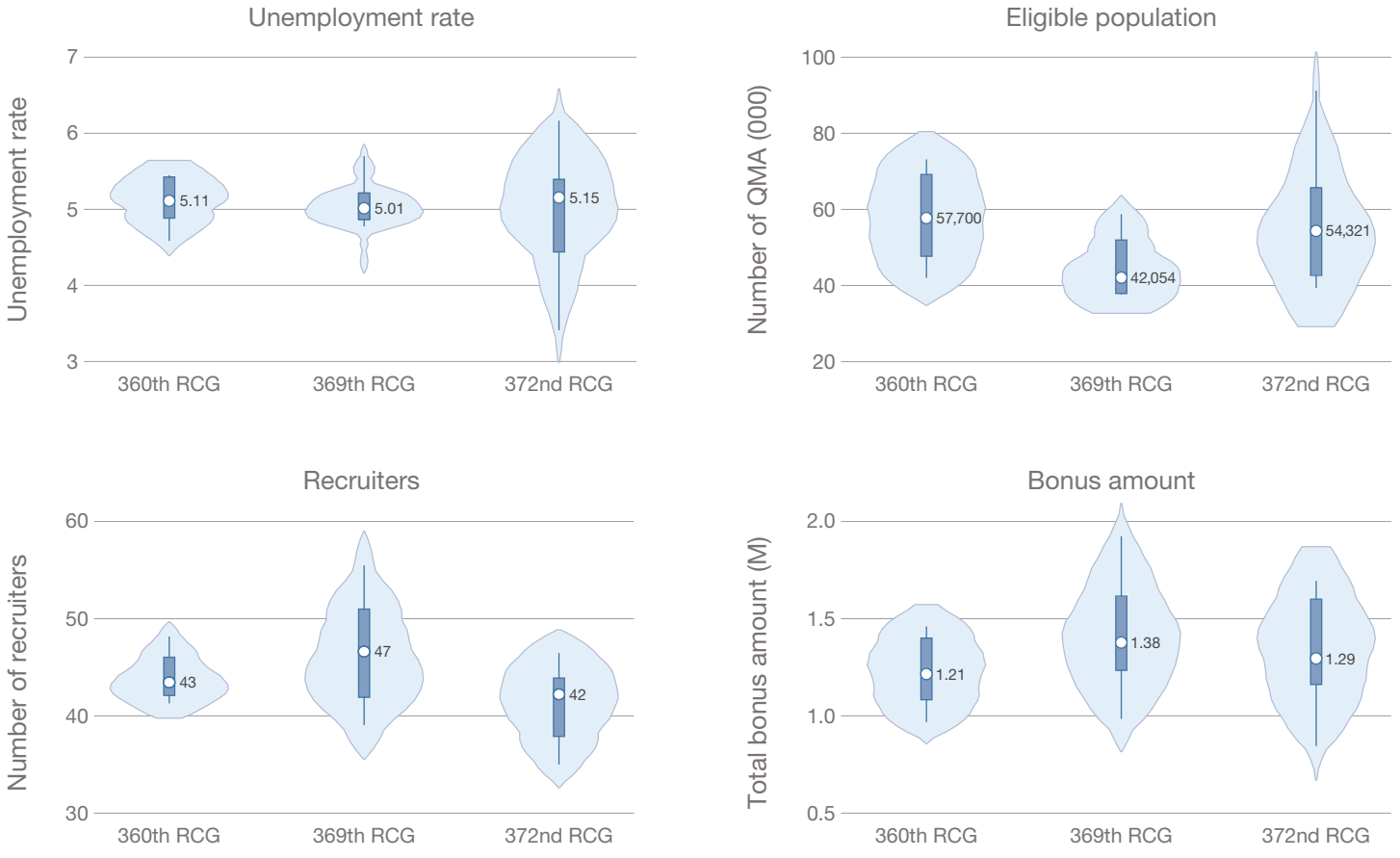
Points that fall above the red line in Figure 5 represent squadrons whose actual goals were higher than the contract production capacity based on their inputs. This means that recruiters in those squadrons are expected to recruit more than the optimal level, given the propensity in their areas, their manning levels, and the availability of enlistment incentives. Shifting goals from these squadrons to those that fall below the red line could raise overall production and transfer the burden on squadrons that have greater contract capacity than their actual goals might indicate.

The model predictions indicate that squadrons within each group were undergoaled relative to their capacity to produce NECs. Within each group, actual goals for squadrons were 3 to 6 percent lower than goals the model predicted. This means that, in FY 2018, recruiters in the squadrons were, on average, capable of signing more NECs.

This type of analysis can be used to break squadrons into tiers based on their capacity for additional production

FIGURE 4

Squadron-Level Recruiting Resources

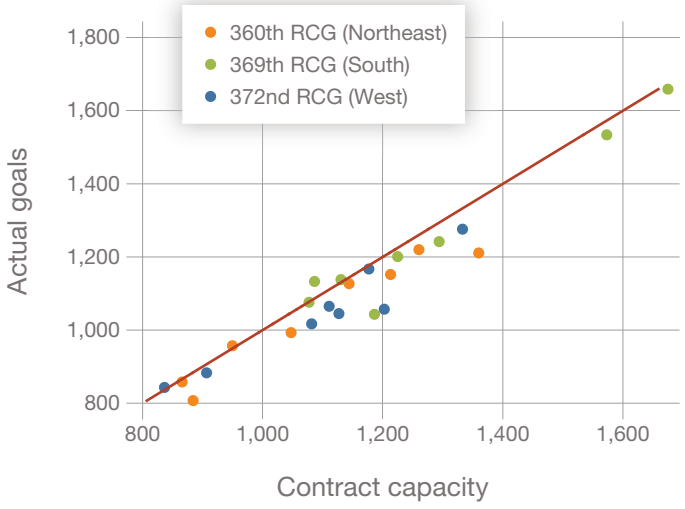


NOTE: The shape of the violin (shaded region) represents the frequency of a given value of each recruiting resource. The darker shaded box inside the violin is similar to a box-and-whisker plot, in which the circle denotes the median; the top of the box denotes the third quartile; and the bottom part of the box denotes the first quartile.

(or lack thereof). For example, we define squadrons whose actual goals are at least 3 percent higher than the goals from the model as having difficult goals and squadrons whose actual goals are at least 3 percent lower as having easy goals. Under these definitions, 14 squadrons had easy

FIGURE 5

Recruiting Capacity Generally Exceeds the Average Five-Year Goals for Squadrons



goals across the three RCGs, and one squadron in the 369th RCG (South) had difficult goals.

Flight-Level Goals

In Figures 6 through 8, we repeat this analysis to compare flight-level goals to expected production based on the model's predictions. At the flight level, five-year production input varies as well. Figure 6 shows the following:

- **Unemployment:** The unemployment rate across geographic areas covered by flights averaged 5.0 percent from FY 2014 to FY 2018. The median unemployment rate at the flight level across RCGs varied from 4.87 to 5.16 percent.
- **QMA and Recruiters:** The average five-year number of QMA was 52,752 at the flight level and ranged from 7,265 to 132,411. Combined with the average number of recruiters per flight, each recruiter drew from roughly 8,792 QMA. The median number of QMA varied from 40,617 to 53,426 across RCGs, and the median number of recruiters stayed relatively constant at six recruiters per flight.
- **Bonuses:** The average bonus amount available to each recruiting flight was approximately $174,949, and the median total bonus amount at the flight level across RCGs varied from approximately $150,000 to $180,000.

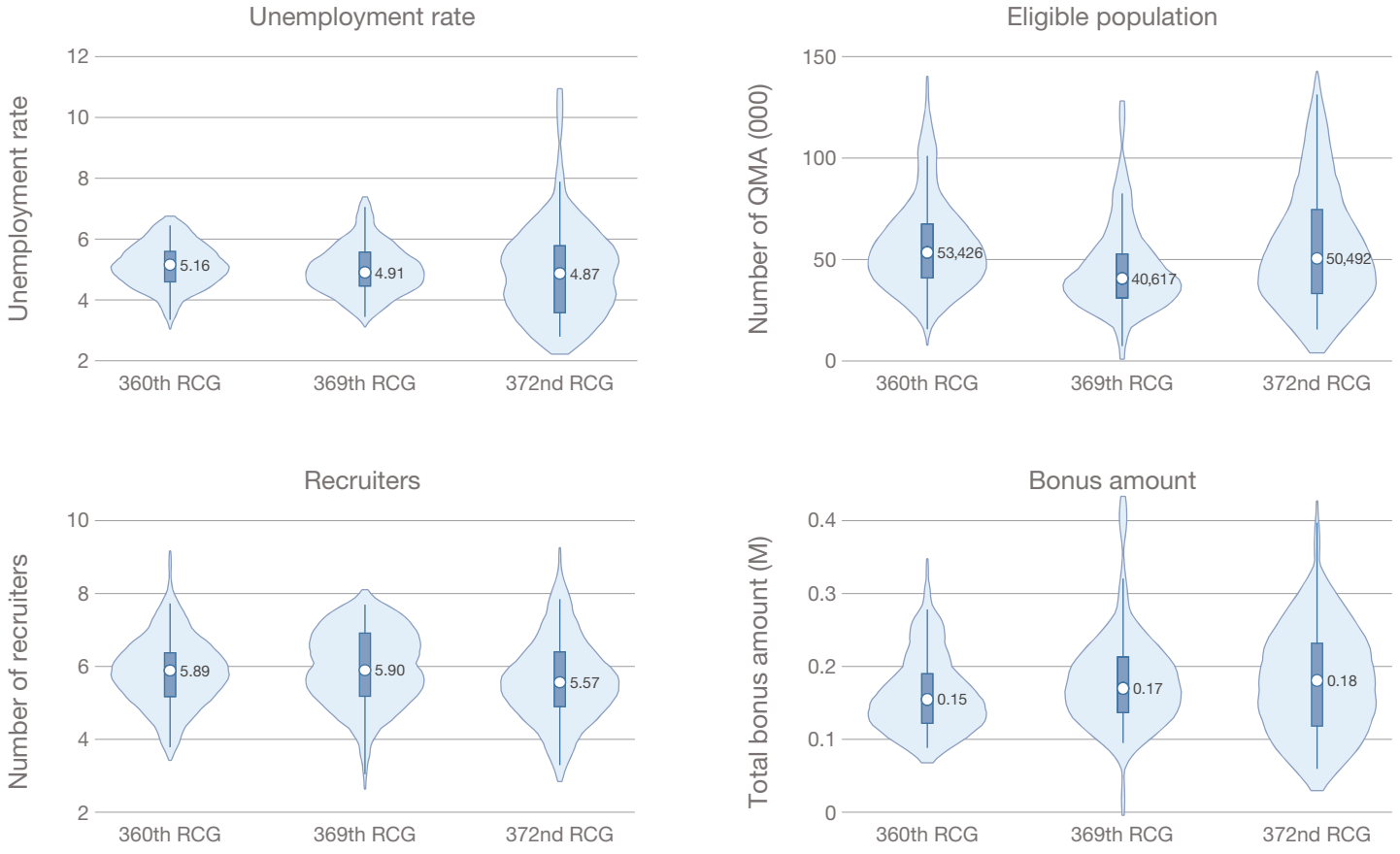
This analysis shows that the 360th RCG (Northeast) flights face, on average, higher unemployment rates, a larger number of QMA, and lower total bonus amounts than the flight level medians of the other RCGs.

As before, Figure 7 compares each flight's assigned goal with the contract production capacity from the model. Flights above the red line had higher actual goals than their production capacities. The results at the flight level show more variation in whether the model over- or underpredicted goals than did the results at the squadron level. However, similar to the squadron results, a majority of flights were undergoaled relative to their capacity to produce NECs, with 64, 72, and 77 percent of flights in the 369th RCG (South), 360th RCG (Northeast), and 372nd RCG (West), respectively, estimated to have contract production capacities that exceed actual goals.

Figure 8 uses the model results to identify flights whose goals are significantly above (red squares) or below (green circles) their capacity, as determined by the model.

FIGURE 6

Flight-Level Recruiting Resources

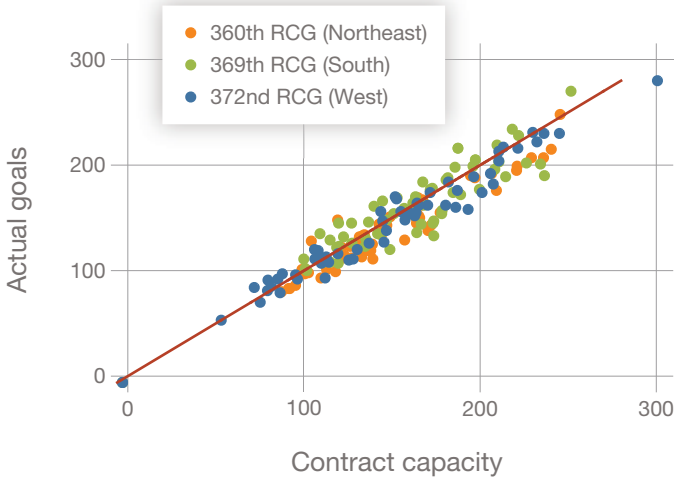


The difficulty threshold in the figure is 10 percent, and the figure specifically labels flights whose actual goals are more than 15 percent above or below their capacity. By identifying flights that are over and under capacity, RCGs can see which flights could take on more recruiting goals or where they could reallocate goals from overcapacity flights to undercapacity ones.

Across all three RCGs, far more flights had easy goals than difficult goals based on the 10-percent threshold. In the 360th RCG (Northeast), two flights had difficult goals, and 20 flights had easy goals. In the 369th RCG (South),

FIGURE 7

Five-Year Production Average Goals and Model-Based Goals for Flights



five flights had difficult goals, and 17 flights had easy goals. And in the 372nd RCG (West), one flight had difficult goals and 15 had easy goals.

Conclusions

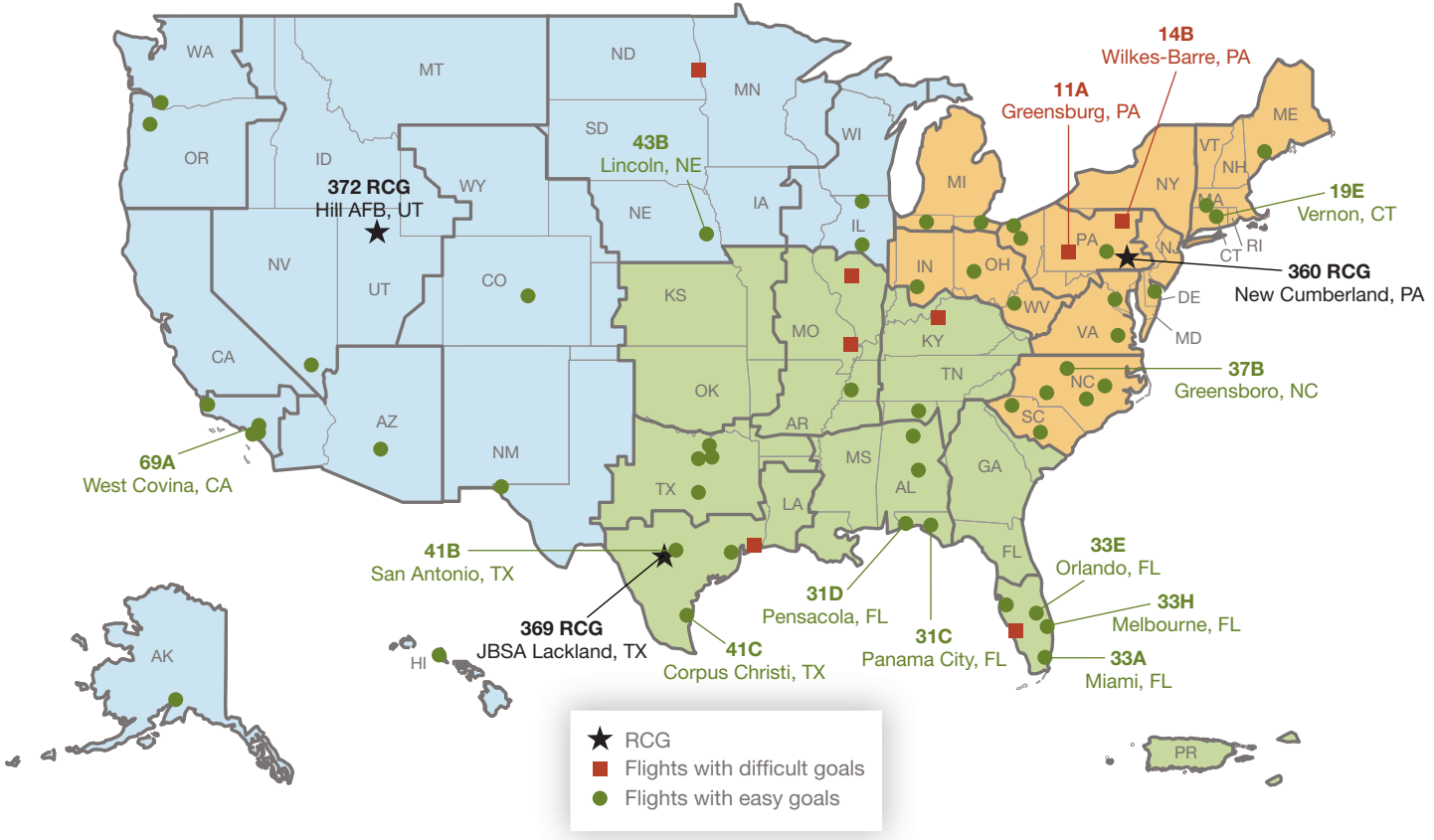
For many squadrons and flights in the DAF enterprise, AFRS's method for goal-setting produces similar results to a model that accounts for recruiting resources that affect recruiting difficulty. Still, this exploratory analysis also demonstrates some opportunities to improve the productivity of the recruiting enterprise or to reduce costs by accomplishing the same mission with fewer resources. Therefore, this simple exploration of a model-based goal-setting scheme suggests the following considerations for AFRS.

A simple model of production capacity can be used to reallocate existing recruiting resources more efficiently when necessary. The model-based goal-setting can both validate DAF goals as estimated by five-year production averages at the overall entity level and highlight more-granular variation in recruiting goals at the local level. Ultimately, AFRS must apportion the entire accession goal to its groups and squadrons. But adjusting goals based on a model prediction of the unit's recruiting capacity, rather than its share of historical production, would do a better job of ensuring that the goals are reasonably challenging. This approach also has the advantage of identifying areas that are underresourced, if policy goals seek to recruit more than the model's predicted capacity in a geographic area, and overresourced, if policy goals seek to recruit less than the model's predicted capacity in a geographic area. Use of the model could ensure that underresourced areas could have higher priority in filling recruiter vacancies in the assignment process, additional marketing resources, etc. The model could also be used to reallocate existing recruiting resources from overresourced areas to underresourced areas to minimize the gap between desired production and the model estimate of productive capacity.

The use of production capacity benchmarks for experimentation can improve recruiting tactics. Once they incorporate the model-based refinements, the goals would be a good benchmark for the natural production capacity of an area, given its manning and environment. AFRS could use this benchmark to measure the effectiveness of changes to recruiting tactics in certain areas. For example, AFRS could allocate local marketing funds to some areas (but

FIGURE 8

Recruiting Difficulty at the Flight Level in FY 2018



not others) for events and could measure whether these areas outproduce their benchmarks to a greater degree. Alternatively, AFRS could use the benchmarks to establish *stretch*—slightly more difficult—goals for some areas, tied to incentives for reaching them, to discover ways to stimulate additional recruiter effort.

Further model improvements could add value to recruiting operations. This analysis focused on goals rather than more-precise data on recruiting resources that would improve model fit and, therefore, improve the accuracy of the model's use in goal-setting. For example, prior research for the U.S. Army found that the most productive recruit-

ers tended to be younger, originate from certain occupations, resemble their station's market-area demographics, or have been assigned to their home states (Dertouzos and Garber, 2006). With more-precise data on recruiter attributes, further improvements could be possible by matching individual recruiters to the areas where they would be most productive and better fit the demographic representation of a station's market area. Along with data on recruiter attributes, other recruiting resources, such as the marketing spending and impressions in each locale, can improve not only goal-setting but also other processes, such as recruiting spending.

Notes

[1] The figure does not go back further than FY 2011 because of DAF data limitations related to the transition from the Air Force Recruiting Information Support System (AFRISS)–Legacy to AFRISS Total Force. The figure and analysis focus on new enlisted contract (NEC) goals instead of accession goals, also known as enter active duty (EAD) goals, because EAD goals are not available at the squadron and flight levels. This is further described in the next section.

[2] Additional squadrons are responsible for health professions and special warfare operators.

[3] This basic model focuses on improving AFRS's goal-setting approach by taking recruiting environments into account. However, the model does not consider all factors influencing goal-setting. For example, it does not take the U.S. Air Force's objective to increase force diversity into account when considering demographic representation across geographies.

[4] *High-quality contracts* are those with recruits who have high school diplomas and scored in the top 50 percent of the Armed Forces Qualification Test composite of the Armed Services Vocational Aptitude Battery.

[5] We included all recruiters who were listed under a recruiting flight in AFRISS Total Force because we could not identify recruiters who were on production status (i.e., not on leave or deployed) who were actively tasked with a contract mission.

[6] When we restricted the model to high-quality contracts, the model estimated a positive association between unemployment rate and contracts. Because high-quality contracts do not have separate mission goals, we estimated these by multiplying total mission goals by the proportion of actual contracts that were of high quality. The results comparing estimated high-quality mission goals and model-predicted goals using the high-quality model are similar to those for the full contract model presented in this Perspective, suggesting that the negative relationship between the unemployment rate and contracts is not driving the model-predicted results in the full contract model.

[7] Total IEB bonus amounts reflect the mix of IEBs offered based on the Air Force Specialty Codes of those recruited during the period estimated. The change in the composition of career fields in a flight or of career field preferences in the geographic region of responsibility would change the total IEB bonus amount, but this model does not adapt for this change because the model does not take into account career fields.

References

AFRS—*See* Air Force Recruiting Service.

Air Force Policy Directive 90-6, Air Force Strategy, Planning, Programming, Budgeting, and Execution (SPPBE) Process, Washington, D.C.: Department of the Air Force, June 26, 2019. As of June 25, 2021: https://static.e-publishing.af.mil/production/1/saf_mg/publication/afpd90-6/afpd90-6.pdf

Air Force Recruiting Service, "Air Force Recruiting Service Groups/Squadrons," webpage, undated. As of June 25, 2021: https://www.recruiting.af.mil/About-Us/Groups-Squadrons/

Asch, Beth J., Paul Heaton, James Hosek, Francisco Martorell, Curtis Simon, and John T. Warner, *Cash Incentives and Military Enlistment, Attrition, and Reenlistment*, Santa Monica, Calif: RAND Corporation, MG-950-OSD, 2010. As of June 25, 2021: https://www.rand.org/pubs/monographs/MG950.html

Dertouzos, James N., and Steven Garber, *Is Military Advertising Effective? An Estimation Methodology and Applications to Recruiting in the 1980s and 90s*, Santa Monica, Calif.: RAND Corporation, MR-1591-OSD, 2003. As of June 25, 2021: https://www.rand.org/pubs/monograph_reports/MR1591.html

———, *Human Resource Management and Army Recruiting: Analyses of Policy Options*, Santa Monica, Calif.: RAND Corporation, MG-433-A, 2006. As of June 25, 2021: https://www.rand.org/pubs/monographs/MG433.html

Joint Advertising, Market Research and Studies, "The Target Population for Military Recruitment: Youth Eligible to Enlist Without a Waiver," briefing slides, September 2016. As of June 25, 2021: https://dacowits.defense.gov/Portals/48/Documents/General%20Documents/RFI%20Docs/Sept2016/JAMRS%20RFI%2014.pdf?ver=2016-09-09-164855-510

Knapp, David, Bruce R. Orvis, Christopher E. Maerzluft, and Tiffany Tsai, *Resources Required to Meet the U.S. Army's Enlisted Recruiting Requirements Under Alternative Recruiting Goals, Conditions, and Eligibility Policies,* Santa Monica, Calif.: RAND Corporation, RR-2364-A, 2018. As of June 25, 2021: https://www.rand.org/pubs/research_reports/RR2364.html

Pinelis, Yevgeniya K., Edward J. Schmitz, Zachary T. Miller, and Erin M. Rebhan, *An Analysis of Navy Recruiting Goal Allocation Models*, Arlington, Va.: CNA, CRM D0026005.A2/Final, December 2011. As of June 25, 2021: https://www.cna.org/CNA_files/PDF/D0026005.A2.pdf

Warner, John T., Curtis J. Simon, and Deborah M. Payne, *Enlistment Supply in the 1990's: A Study of the Navy College Fund and Other Enlistment Incentive Programs*, Arlington, Va.: Defense Manpower Data Center, DMDC Report No. 2000-015, April 2001. As of June 25, 2021: https://apps.dtic.mil/sti/pdfs/ADA390845.pdf

About the Authors

Tiffany Berglund, a quantitative analyst at the RAND Corporation, has more than seven years of experience in military recruiting and retention, including the impacts of recruiting resources on enlistment supply and diversity in the armed forces.

David Schulker is a senior policy researcher at RAND. His research focuses on applying econometric and statistical techniques to help Department of Defense and Department of Homeland Security clients analyze human resource management challenges related to outreach, recruiting, career progression, talent management, workforce development, and retention.

Tracy C. Krueger, a senior researcher at RAND, focuses on the design and implementation of talent management systems, including recruiting, assessment, selection, training, performance management, and career development.

Nelson Lim is director of the Workforce, Development, and Health program in RAND Project AIR FORCE and a senior social scientist at RAND. His research has centered on human resource management practices in large institutions, with a particular focus on the effective use of data-enabled talent management practices for generating and sustaining improvements in workforce diversity.

About This Perspective

The U.S. Department of the Air Force has historically used a simple approach to allocate goals to recruiting groups, proportionally assigning goals to each based on its five-year production average. However, many factors influence whether the U.S. Air Force can successfully produce contracts; therefore, the same factors that influence contract production should be considered during the goal-setting process. This Perspective compares and contrasts the current goal-setting process with a more comprehensive model-based goal-setting process that accounts for factors influencing contract production.

The research reported here was commissioned by the Deputy Assistant Secretary of the Air Force for Force Management Integration and conducted within the Workforce, Development, and Health Program of RAND Project AIR FORCE as part of a fiscal year 2020 Project AIR FORCE Total Force Recruiting Integration. The project focused on collecting and validating the necessary data and conducting an exploratory analysis to lay the foundation for further progress in data-enabled resource decisionmaking.

RAND Project AIR FORCE

RAND Project AIR FORCE (PAF), a division of the RAND Corporation, is the Department of the Air Force's (DAF's) federally funded research and development center for studies and analyses, supporting both the United States Air Force and the United States Space Force. PAF provides the DAF with independent analyses of policy alternatives affecting the development, employment, combat readiness, and support of current and future air, space, and cyber forces. Research is conducted in four programs: Strategy and Doctrine; Force Modernization and Employment; Workforce, Development, and Health; and Resource Management. The research reported here was prepared under contract FA7014-16-D-1000.

Additional information about PAF is available on our website: www.rand.org/paf/

Acknowledgments

We thank the project sponsor, Mark Engelbaum, as well as Craig Ploessl and Brig Gen Ellen Moore for their valuable support. In addition, the authors thank the many individuals at AFRS who supported data requests and provided insights about the data: Maj Gen Edward W. Thomas, Jr., Maj Gen Jeanie Leavitt, Michael Romero, Col Thomas Butler, Col Brian Wish, and Barry Dickey, Maj Brian Crawford, 1st Lt Rebecca Murphy, MSgt Carlton Carpenter, Ricky Boring, and James Feldaus.

www.rand.org