Cadet Metrics 2020

What the Cadet Program needs to measure, and why

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CAP says it develops young people into aerospace leaders, but is that actually so? Because we care about the cadets, we need to evaluate how well the Cadet Program is performing. While performance metrics will be useful as we try to attract donors, the main reason organizations evaluate their programs is *so they can learn what's working and how to serve people better.* Program evaluation is not an exercise in *Gotcha!* but an effort to improve cadet life.

This short paper introduces the cadet community to basic concepts that should guide this effort. Further, we propose ten Key Performance Indicators, each capable of being "rolled up" for a national-level perspective, and "drilled down" into for a wing or unit-level perspective. ***(To jump into the KPIs, see page 5.)*** We hope this attempt to engage the community results in a consensus for the draft KPIs such that people start using them to improve Cadet Programs later this year.

1. Myths of Evaluation

First, it may be useful to dispel some myths about program evaluation. At first glance, certain metrics seem like a good match for the Cadet Program, but upon closer inspection they are revealed as red herrings.

1.1. Joining the Military. How many cadets join the military? We are all asked this question a lot. It seems like a natural measure for us, given our Air Force affiliation. However, we are not chartered to recruit for the armed services. We accept youth of all backgrounds, including youth ineligible for military service. Further, enlistment rates tend to be highest when the economy is in recession, a factor beyond our control.

1.2. Cadet Retention. What percent of cadets renew their membership? If the program is strong, one would expect that cadets would continue for another year. That's true to a point, but adolescent psychology tells us that cadet-aged youth explore different interests, so their leaving one extracurricular to pursue another is healthy. Further, the cadet's family and school situation may impede their ability to continue as a cadet. When cadets leave CAP, we should want them to be willing to recommend CAP to a friend, but their leaving is not necessarily our failure. In their study of Scouting, Harris Interactive rejected annual retention as a useful metric. RAND Corporation rejected it in their study of CEAP.

1.3. Licensed Pilots. How many cadets become pilots? That's another measure that seems reasonable at first glance. CAP can introduce cadets to aviation, but in a best-case scenario, CAP is only one step in the career pipeline. The cadets would need to enter aviation colleges or the military. Creating a pilot is a multi-year endeavor, much of it beyond our control. Even if a cadet becomes an F-22 pilot, did CAP cause that outcome to the exclusion of all other factors? Perhaps the cadet's aunt was an Air Force pilot and she deserves the credit for inspiring the cadet more than CAP does.

1.4. Turning Senior. How many cadets go on to serve as senior members? That measure is not connected to the Cadet Program's mission. Moreover, it wrongly assumes that the interests one has as a twelve-year-old remain the same into adulthood. Further, the metric would mark all of our otherwise successful cadet alumni as failures on account of their not remaining in CAP.

2. Lessons Learned from the Myths of Evaluation

As we considered some possible metrics that did not withstand scrutiny, we learned some principles about what constitutes valid and useful measure of program success.

2.1. Mission Connection. Good metrics are directly related to the mission. The mission explains what outcome a program intends to achieve, so we want to measure our success in that area and not be distracted by curiosities unrelated to our overarching purpose. In CAP's case, the key question is, *Are we transforming youth into aerospace leaders?*

2.2. Causal Mechanism. A program cannot claim success for an outcome unless it can point to an activity that is reliably known to cause that outcome. Time is a big factor; learning outcomes can more readily be attributed to recent learning activities than lessons from long ago. Further, sometimes research gives us a shortcut. For example, scholars know that youth having positive role models contributes to their developing leadership skills, so a program that uses mentoring can infer that its mentoring activities partly causes whatever leadership growth cadets experience.

2.3. Practicality. Whatever measures we adopt, each needs to be practical enough for squadrons, wings, and national staff to work with. If the data is too time-consuming to collect, or beyond the capabilities of a non-specialist to comprehend, then the metrics become an undue burden siphoning time and effort from the cadets. Metrics are useful only if they help people get better at the organization's mission.

2.4. Understand the Ecosystem. People are interconnected. We live and learn within ecosystems. A youth-serving program like ours is but one link in a long chain leading toward responsible citizenship, an aerospace career, a commitment to the Core Values, etc. CAP has to ***pass the baton*** to the next link(s) in the chain. We need to ask our partners down range if the cadets we send to them are succeeding at that next level. That's a more feasible way of measuring long-term success than the impossible dream of our collecting alumni news decades later. We should ask partners like the Air Force, the aviation colleges, parents, etc., if they see evidence of our achieving short- and medium-range goals that equip cadets for longer-term success.

3. Toward Cadet Metrics Grounded in the Latest Improvement Science

Are we transforming cadets into aerospace leaders, as our mission requires? That's a big, abstract question that is difficult to approach head-on, so instead we can use a handful of markers that, taken collectively, help us answer that question. This year, we propose using ten different metrics as our "key performance indicators" or KPIs. If we do well against the KPIs, we can be reasonably confident that we're fulfilling our mission and vision. Before we discuss each KPI, I'll explain the process we used to identify those metrics.

3.1 Logic Model. First, our team constructed a logic model (CAPVA 60-109) that shows the relationship between America's pressing social needs, the resources available to CAP, the basic content of cadet life, and the results we aim to achieve for America. It tells the story of how we take ordinary youth, train and educate them, and transform them into awesome young leaders. Logic models are broadly accepted as a main component of improvement science or program evaluation. They are used throughout government and the nonprofit sector – enterprises that do not have the luxury of simply looking at a profit-and-loss statement to gauge whether a program is working or not.

3.2 Program Outputs. The logic model identifies several outputs our program creates – direct products of cadet life's activities, such as Mitchell Awards earned, O-flights flown, encampments graduated, etc. Most program outputs are easy to count, and local leaders smile when they see those measures go up. Still, even if our outputs are high, that begs the question, "So what?" Thousands of cadets graduated encampment. Okay, but so what?

3.3. Program Outcomes. While outputs are important, they are not the real finish line for us. For example, we want to produce encampment graduates because encampment is a great way to achieve outcomes like self-discipline, teamwork, etc. that matter to stakeholders down range such as aviation industry, the Air Force, and parents, who hope today's cadets will become the tomorrow's aerospace leaders. A couple months after encampment, are people seeing behavioral changes in individual cadets that show encampment's lessons of self-discipline, resilience, etc., have taken root?

3.4. ***Benchmarks.*** When possible, we should choose measures that other leading organizations think are important, and then strive for best in class performance. It's not sufficient for us to just try to do a little bit better every year. To use an automotive analogy, we want our fuel efficiency to be on par or better than the competition's. Still, we need to walk before we run, so initially we will measure our own year-to-year performance, build our dataset, find our historical averages, and gradually benchmark against measures common across youth-serving organizations.

3.5. Rolling-Up and Drilling-Down. KPIs are at their most helpful when national staff can "roll up" data across 1,000 hometown squadrons to obtain a global perspective on mission effectiveness, and local leaders can drill-down into KPIs to understand how local programs are faring.

4. Two New Supplementary Tools

As we measure mission success, two new (or new-ish) tools can help by going beyond the type of data we already collect such as enrollment totals and flight hours.

4.1. Annual Survey. A practical, reliable method of measuring cadets' growth in "soft skill" areas like moral character and leadership is via a 360º survey instrument. Each fall, shortly after encampment and NCSA season concludes, we will survey cadets, and for added reliability, we will survey cadets' parents and CP officers as well. We've done this a handful of times already, with assistance from the RAND Corporation. For the next iteration, we will refine RAND's approach by leveraging our new logic model, which was not available to RAND during the initial runs. The survey will primarily focus on the soft-skill KPIs of safe environment (KPI #2), self-discipline (KPI #7), and enthusiasm for Air Force and STEM careers (KPI #10).

4.2. Board of Visitors. We can keep the cadets busy, but are we busying them with what truly matters to America and what scholars know is a building block for long-term success? Recall the "pass the baton" principle of 2.4, above. We need external partners to tell us if we are doing our part to feed the aerospace / Core Values ecosystem. A new Cadets' Board of Visitors comprised of outside experts would meet annually or biennially to validate activities on the current logic model or identify gaps and opportunities for change that would keep cadet life relevant to cadets, families, and America. The Cadets' Board of Visitors would be strictly evaluative and advisory in nature, not a policy-making body. Members would likely include representatives from aviation colleges; the Air Force's Holm Center, Academy, or Recruiting Service; perhaps our friends in the Air Cadet League of Canada, and youth development experts from the Boys and Girls Club and National Youth Leadership Council.

5. Conclusion: Measuring the Difference We Make

KPIs are useful, valid, and reliable measures of how well we're achieving our vision. Today, we are mostly a compliance-centered culture. Our IGs check adherence to regulations. That's important work, but a unit could be in full compliance

and wholly ineffective at making a difference for cadets or America. If we explain to the cadet community why KPIs are important and motivate everyone to pay attention to them, we will naturally do better for the cadets. We will learn more about how to accomplish our important work. We will measure what's truly important, and that's the work most apt to get done.

Enough context and backstory; let's consider the new KPIs (see page 5). Each rolls-up and drills-down. For most, the data are already available, though not yet in one handy, easy to visualize space.

Notes on Finger-Pointing & Gamesmanship for Select KPIs

3 Enrollment

Possible Objection: Our enrollment is low because several cadets recently graduated high school and have moved on.

Reply: Ok. But faring poorly here shows the unit should try to be steadier with its recruiting effort. Are you using cohort recruiting and conducting an open house every spring and fall?

5 Cadet Achievement

Possible Objection Our achievement rate is lower than neighbor squadrons' because we hold cadets to high standards and they do not.

Reply: Continue to use Leadership Feedback tools and measure cadets' leadership skills against the "leadership expectations" on the Cadet Super Chart. If a neighbor unit is producing cadet NCOs and officers who can't drill or can't lead at a basic level, trust the DCP to correct the problem.

On the other hand, if your cadets simply aren't advancing, consider if you are providing enough of the following: motivational prompts, opportunities to test, learning activities that match their current tests' subject matter, coaching for leadership skills, tutoring for the academics, etc.

6 Flying

Possible Objection: Our squadron isn't flying enough, and we can't fix that because we lack pilots and a plane.

Reply: In that situation, the wing's numbers would be low, too, so there's an incentive for the wing to try to help everyone.

7 Encampment

Possible Objection: Our graduation numbers declined because our facility cancelled on us, or our capacity was set lower than normal.

Reply: Some encampment matters are out of your control, but can you work with neighbor wings to send cadets out-of-state?

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Cadet KPIs

Key Performance Indicators of Mission Success in Cadet Programs

CAP Visual Aid 60-112
Draft 5 May 2020

For the latest version of the Cadet KPIs, please download CAPVA 60-112.

1 SQUAI HEALT

National: Number of each of past ten years against the benchmar

Wing: A. Same as na wing B. Number of sc to earn QCUA this yea against the benchmar

Unit: A. Number of Q past five years as a wi for current year to dat categories

Benchmark: 40% of units, per Boys & Girls

6 FLYINC

National: A. Numbe each of past ten years Number of cadets ach Solo, and Private Pilot five years as sparkline completion rate, hour per PPC, against GA a

Wing: A. Same as na for five years and scaled to wing, and B. Percent of squadrons having recorded O-flights in past 6 months

Unit: Yes/no indication of any cadets having flown in previous 180 days

Benchmark: Historical averages

Unit: Percent of cadets having an encampment credit during each of past five years as sparkline against benchmark

Benchmark: Historical average; unit participation: 90%; local rate: 50%

Unit: Same as national, scaled to unit

Benchmark: 85% for each, cadets, parents, CP officers

Unit: Participation in Cyber Patriot as a win/loss for each of past five years

Benchmark: Historical averages

ADET CHIEVEMENT

Promotions per month as st 24-month average; adets ranking-up at each acked column against

s national scaled to wing

ons per month as sparkline nth average

historical averages: B: 35%, M: 14%, Ear: 4%, %

AREER PLORATIONS

Percent of cadets profess- r sustained interest in , or military careers via ber of NCSAs offered for e years as sparkline nark C. Attendance at of past five years as st benchmark

Wing: Same as national (A, C), scaled to wing

Unit: Same as national (A), scaled to unit

Benchmark: Historical averages