

# ACQUISITIONS ABOVE THE STRATUS: PROCURING CONSUMPTION-BASED SOLUTIONS FOR A MODERN DoD

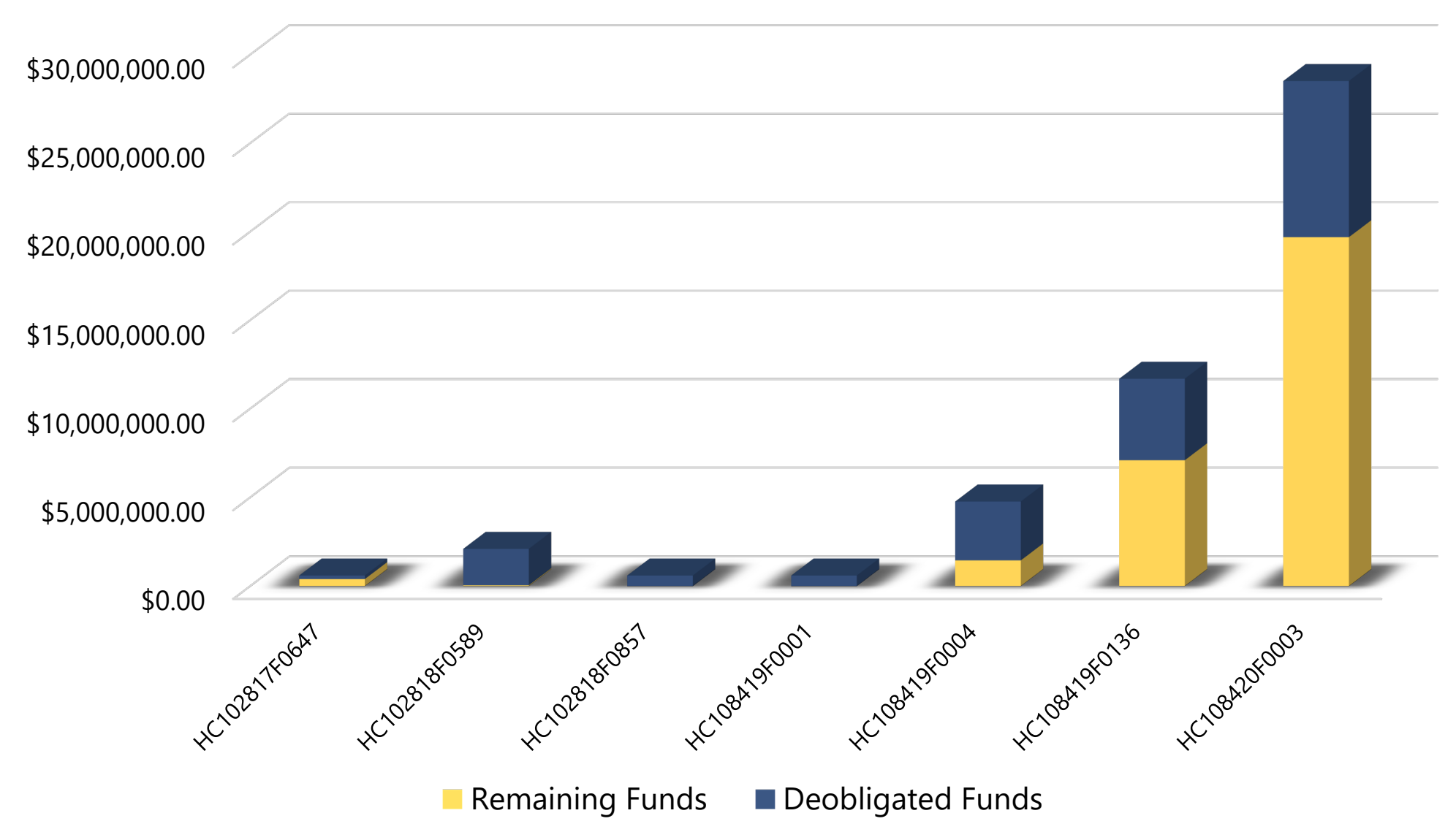


NAVAL  
POSTGRADUATE  
SCHOOL

## Abstract

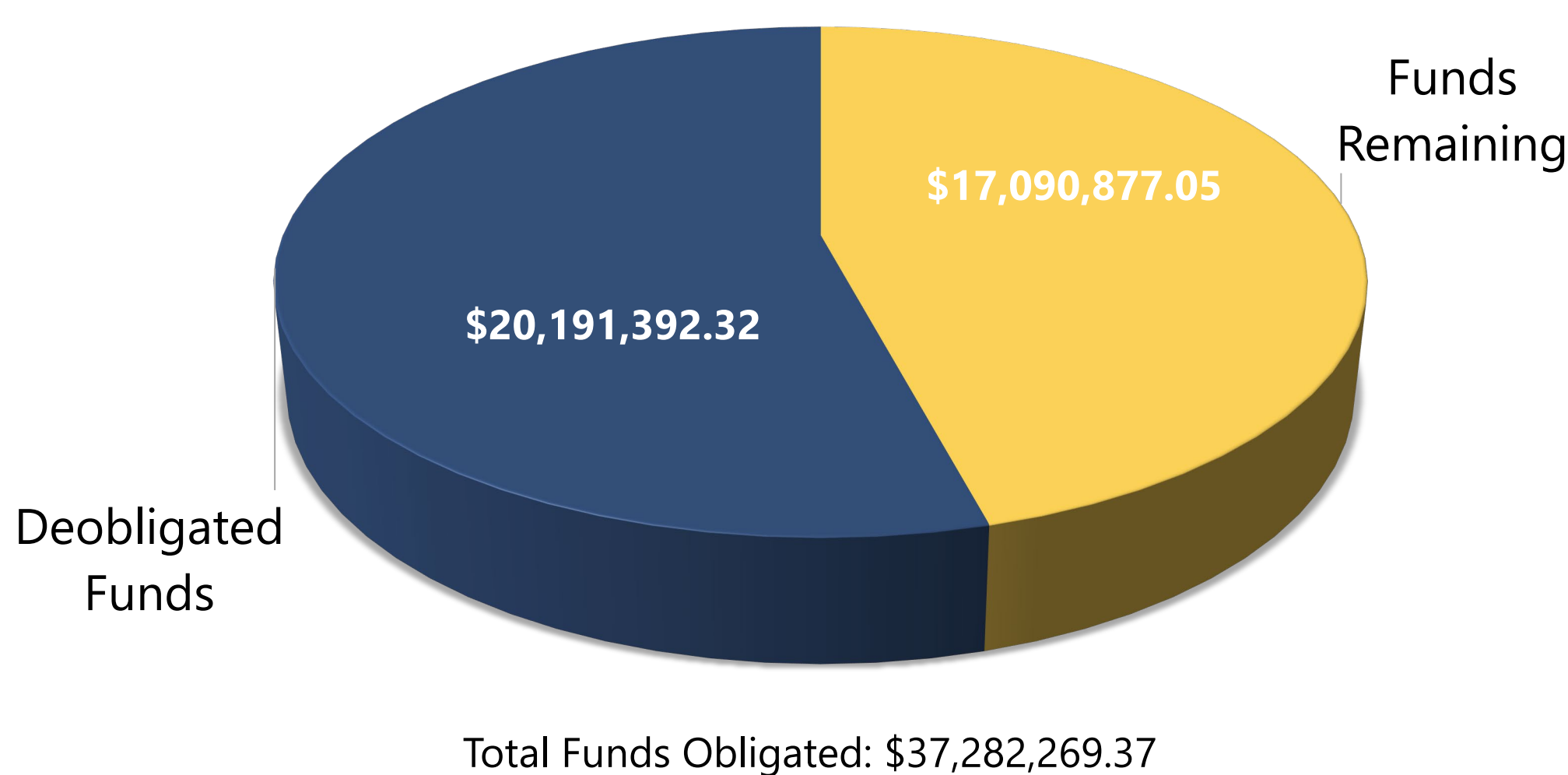
When procuring information technology requirements such as cloud-based services, acquisition professionals are faced with choosing between outdated and misaligned categories of supplies or services established by current Department of Defense (DoD) Acquisition regulations. These offerings are becoming increasingly obsolete in a fluid industry that thrives on speed and innovation. In response, the FY 2020 National Defense Authorization Act proposed to explore the practicality of including consumption-based solutions into Defense acquisition policy. Current contract structures constrain scalability, and it is imperative that the Department of Defense revise its contract types to permit a new type - one generated for commercial goods to be procured on a consumption basis. This Joint Applied Project (JAP) will evaluate the impact of procuring modern DoD capabilities as consumption-based solutions by applying relevant policy analysis, cost effectiveness analysis and case study analysis. Secondary objectives include: identifying defense acquisitions types currently miscategorized as either a supply or service; analyzing the structure of recent large contracts for cloud services and their alignment with commercial best practices; describing oversight and accountability processes that would be affected by consumption-based acquisition; and recommending laws and regulations that would need to change to allow for the acquisition of consumption-based solutions.

**milCloud 2.0 Funds Remaining After Deobligation, by Task Order**



Bar Chart Comparing the Amount of Funds Remaining After Deobligation of Each milCloud 2.0 Task Order

**milCloud 2.0 Obligated/Deobligated Funds**



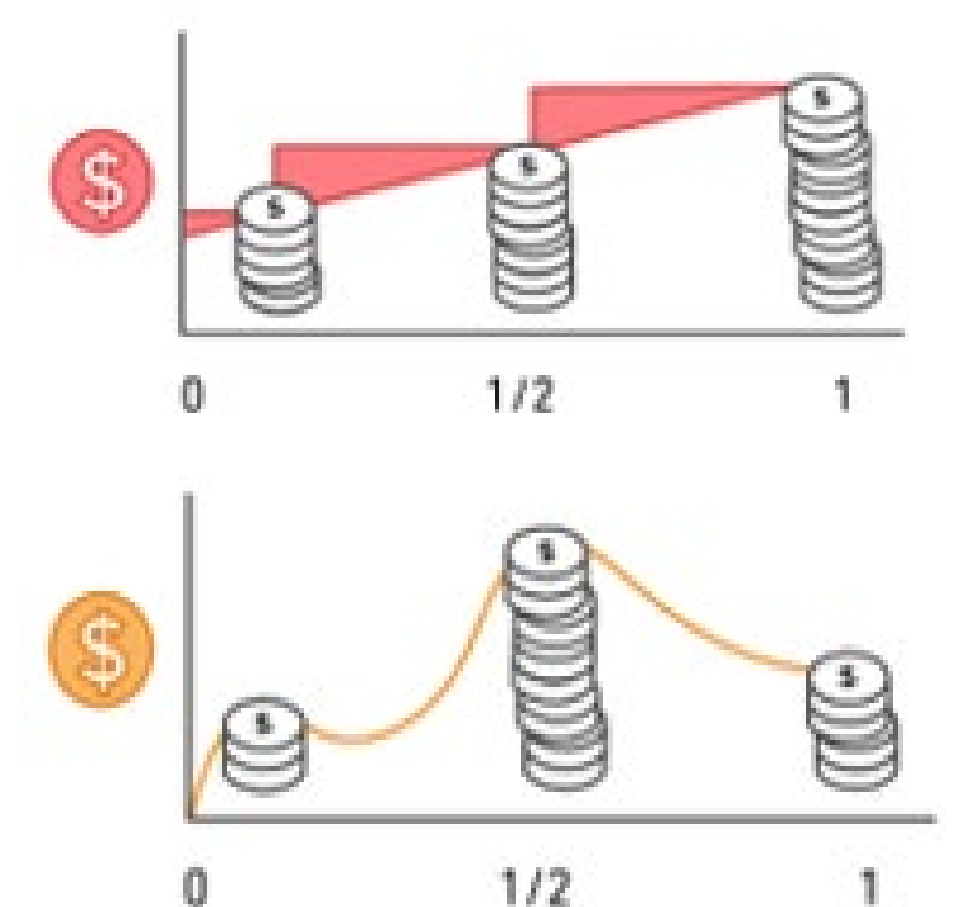
Pie Chart of Cumulative Amount of Funds Remaining After Deobligation, Compared to the Total Amount Obligated Over the Life of the Task Order

## Methods

- Examining the structure of recent large contracts for cloud services (e.g., Defense Enterprise Solutions, Joint Enterprise Defense) and comparing them to commercial best practice methods.
- Determining types of defense acquisitions that are currently miscategorized as either supply or service when they are in fact combinations of the two, and evidence demonstrating the cost of this mismatch.
- Identifying laws or regulations that would need to change to allow for the acquisition of consumption-based solutions.
- Recognizing oversight and accountability processes that could be affected by consumption-based acquisition.
- Investigating the potential benefits of instituting a consumption-based approach to acquisition to enhance the DoD's ability to procure modern capabilities at market prices.

## Results

- Research provides direct implementation of the Section 809 Panel's Recommendation 43: *Revised Acquisition Regulations to Enable More Flexible and Effective Procurement of Consumption-Based Solutions* from a cloud computing perspective. In addition, innovative acquisition solutions concerning reforms to federal procurement law, regulations, and taxonomies are provided to assist in leveraging the most optimal contracting vehicles for future DoD cloud procurements.
- Application of the proposed solutions includes:
  - Creation of a new taxonomy classification for cloud computing;
  - Revision of acquisition regulations to enable more flexible and effective procurement of consumption-based solutions;
  - Implementation of a new contract type: Consumption-Based Variable Price (based upon the time-and-materials);
  - Utilization of Government Purchase Card as a viable means of funding contracts post factum; and
  - Revision of the Anti-Deficiency Act (ADA) as well as the Federal Acquisition Regulation (FAR) to legally implement the acquisition of cloud-based solutions on a consumption basis.



Steppea Funding versus Consumption-Based Payment. Source: Amazon Web Services

## Recommendations

- As the U.S. Armed Forces have shifted to conducting multi-domain operational warfare, the DoD has been increasingly reliant on leveraging cloud-based solutions that deliver on-demand access to shared resources through rapidly configured application or infrastructure models. DoD's inaugural trio of enterprise-wide cloud solutions, comprised of the Joint Enterprise Defense Infrastructure (JEDI), Defense Enterprise Office Solution (DEOS) and milCloud 2.0 have experienced moderate success, however, they are still hindered by the Anti-deficiency Act and subsequently unable to take full advantage of the potential cost and Procurement Administrative Lead Time (PALT) savings realized via consumption-based billing.
- Application of the proposed solutions include the creation of a new taxonomy classification for cloud computing, revision of acquisition regulations to enable more flexible and effective procurement of consumption-based solutions, implementation of a new contract type: Consumption-Based Variable Price (based upon the time-and-materials), utilization of Government Purchase Card as a viable means of funding contracts post factum, and revision of the Anti-Deficiency Act (ADA) as well as the Federal Acquisition Regulation (FAR) to legally implement the acquisition of cloud-based solutions on a consumption basis.