Risk-informed Application Inventory

Focus, Methods, and Use

Method Used

Clean, efficient, explainable

- Use of a simple method was key to understanding how to compare apples to apples
- Risk assessed across four primary categories
  - Software platform
  - Hardware operating system
  - Data type
  - Web presence
- Assigning a numerical score and providing a visual representation for “at a glance” understanding
- Bonus:
  - Scoring process allowed a single set of eyes to evaluate for consistency
  - Allowed for the identification of insufficiently documented applications
- Living document that is updated as new applications are defined/discovered
- Provided the basis to apply elements of our risk assessment to our applications

Assessing Risk

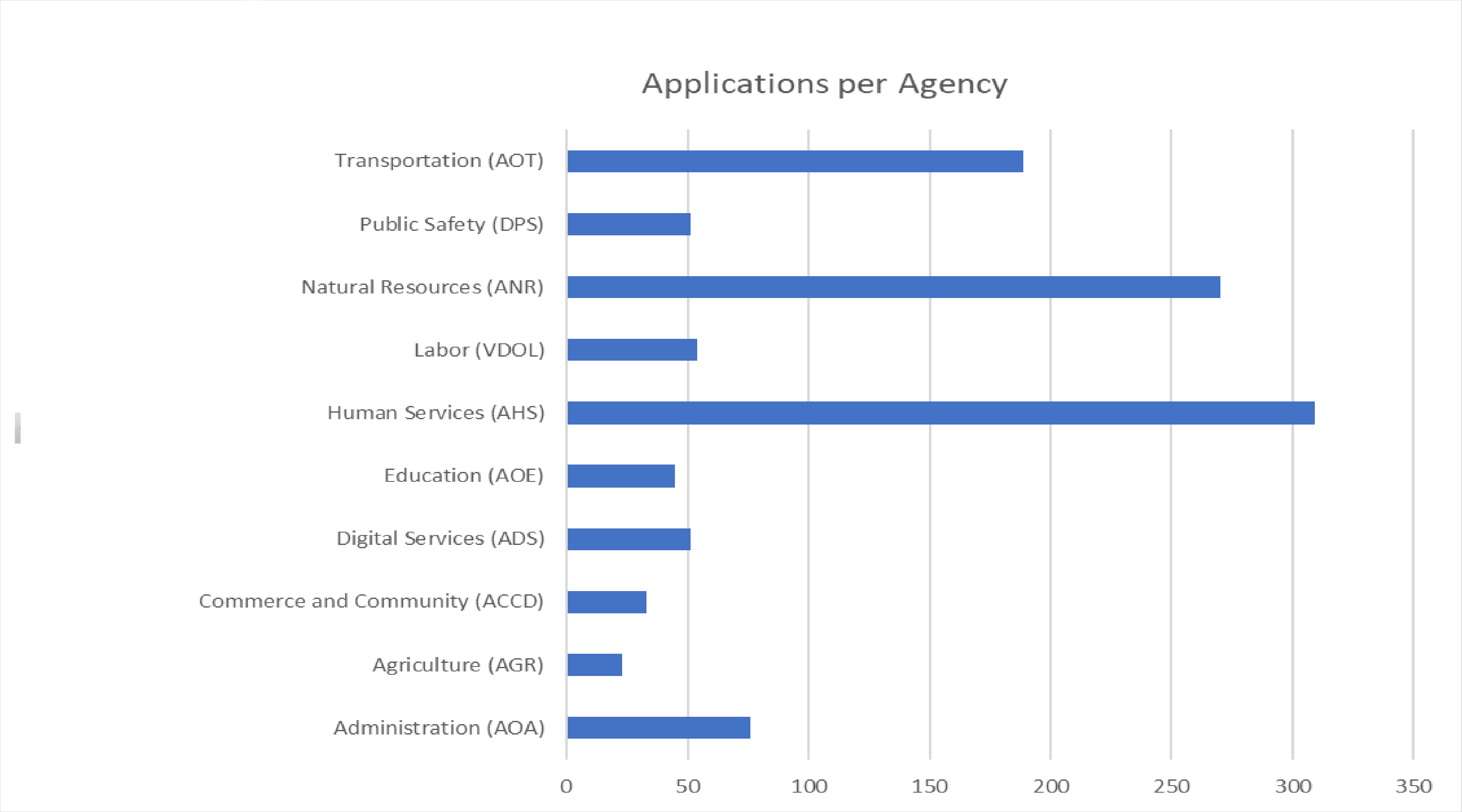
Scripted scoring with human evaluation

- Software platform evaluated against:
  - Latest version = 0
  - Supported version = 1
  - Extended support = 2
  - End of Life/unsupported = 3
- Hardware OS used similar scoring to above
- Data was a simple test
  - Publicly available data = 0
  - Sensitive data of any type (PII/PHI/FTI/etc.) = 3
- Web presence was scored based on exposure
  - No web interface = 0
  - Internal web access only = 1
  - External, vendor owned (SaaS) = 2
  - Public facing, State owned = 3
- Each application total score falls between 0 - 12

Example scoring

- The Agency of Widgets has an application that allows people to find the right widget to support their local businesses. The service has been stable and so, left to run largely unchanged over the last 6-8 years.
  - The service is provided by a SQL server, with a web interface. All of the data is publicly available, and the public can log into it and search for local businesses in the desired category. When built, it had the latest web interface, database, and server platform.
  - Specs – SQL server 2012, IIS 8, 2012r2 server, available at "localwidgets.vermont.gov"
  - Scoring breakdown (7 – Moderate)
    - **Software platform - 2 (extended support)**
    - **Hardware operating system - 2 (extended support)**
    - **Data type - 0 (public)**
    - **Web presence - 3 (State hosted, public searchable)**

Early Analysis



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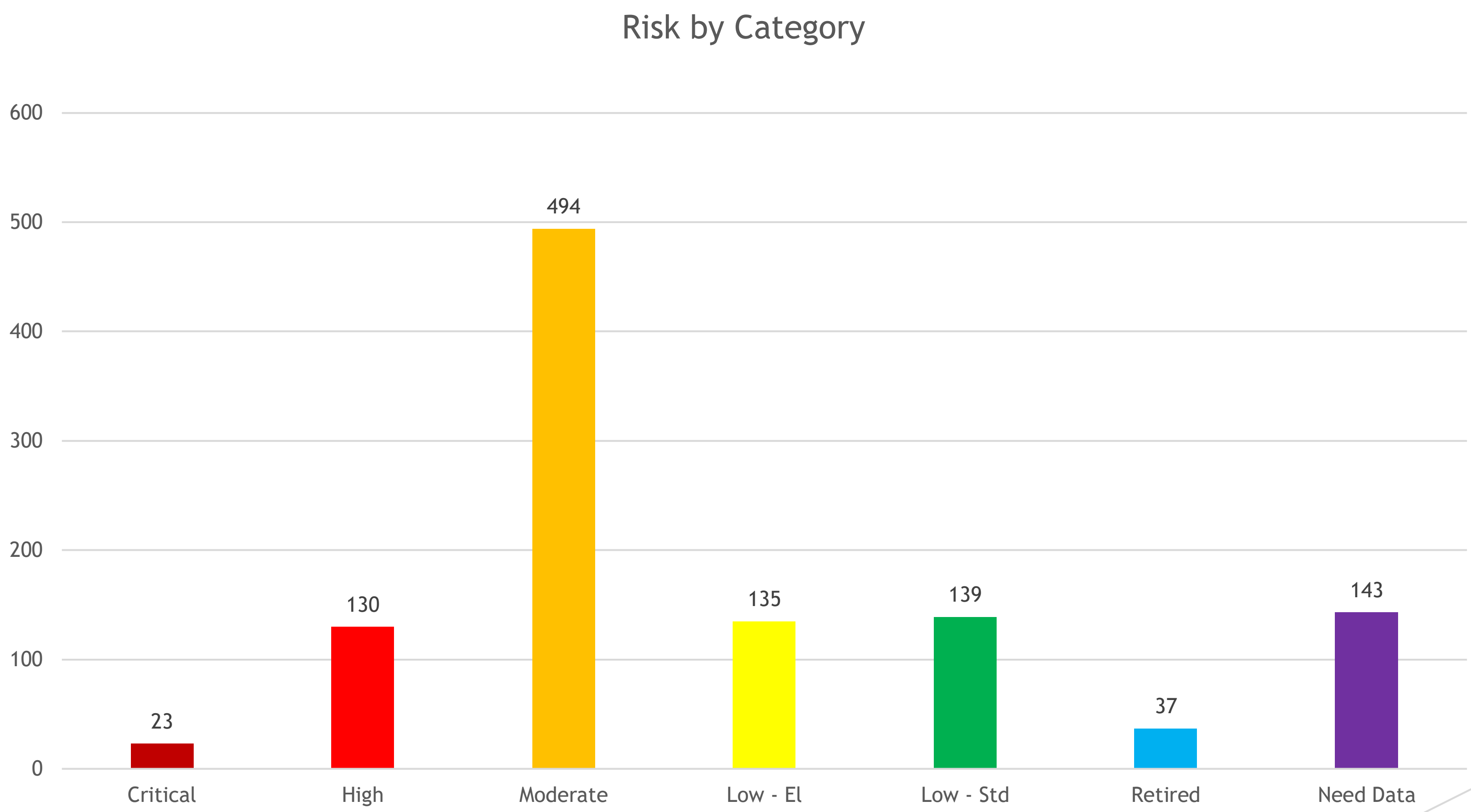

What Did We Learn?

Having an objective basis to focus on improvement adds to efficiency

- Most of the riskiest applications were already known
- The list allows us to share and communicate our position on risk to the enterprise as well as risk to the Agencies
- Long-term inventory management will require a purpose-built system
- Future iterations will allow us to refine our criteria to track and ascertain progress

Future State

Risk management hinges on progress and consistency

- Use the scoring criteria to drive updates, upgrades, and system replacement
- Move data from the flat file format to Archer GRC (governance/risk/compliance) system for better standardization, scoring, and reporting.
- Add additional dimensions of risk criteria to enhance the risk profile (criticality, recovery, resourcing)