

Highway Division Capital Delivery Process Improvements

May 24, 2021



Overview

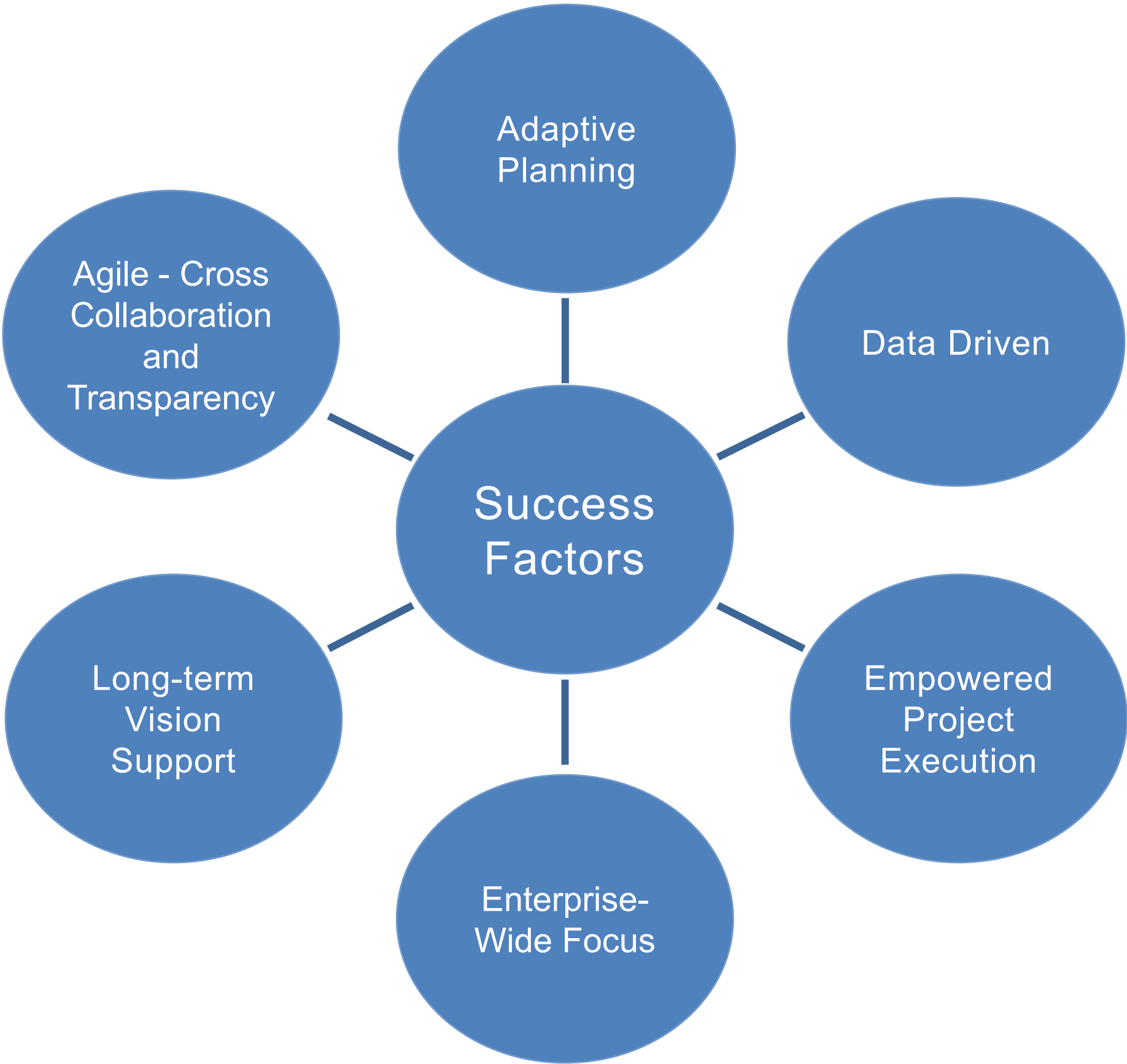
- Between May 2019 and May 2021 the Highway Division streamlined part of the Capital Delivery Process; we cut 150 days between project advertisement and construction NTP.
- We used an Agile Scrum approach to the process improvement projects which enabled us to have enhanced collaboration, transparency, and greater frequency of feedback from senior leaders.
- Highway collaborated with the Secretary's Office, Office of Transportation Planning, OPMT, Fiscal, Legal and ODCR to achieve these results.
- We are using dashboards and monthly check in meetings to ensure that we sustain results.

Cross Departmental Teams Empowered Through Agile Scrum

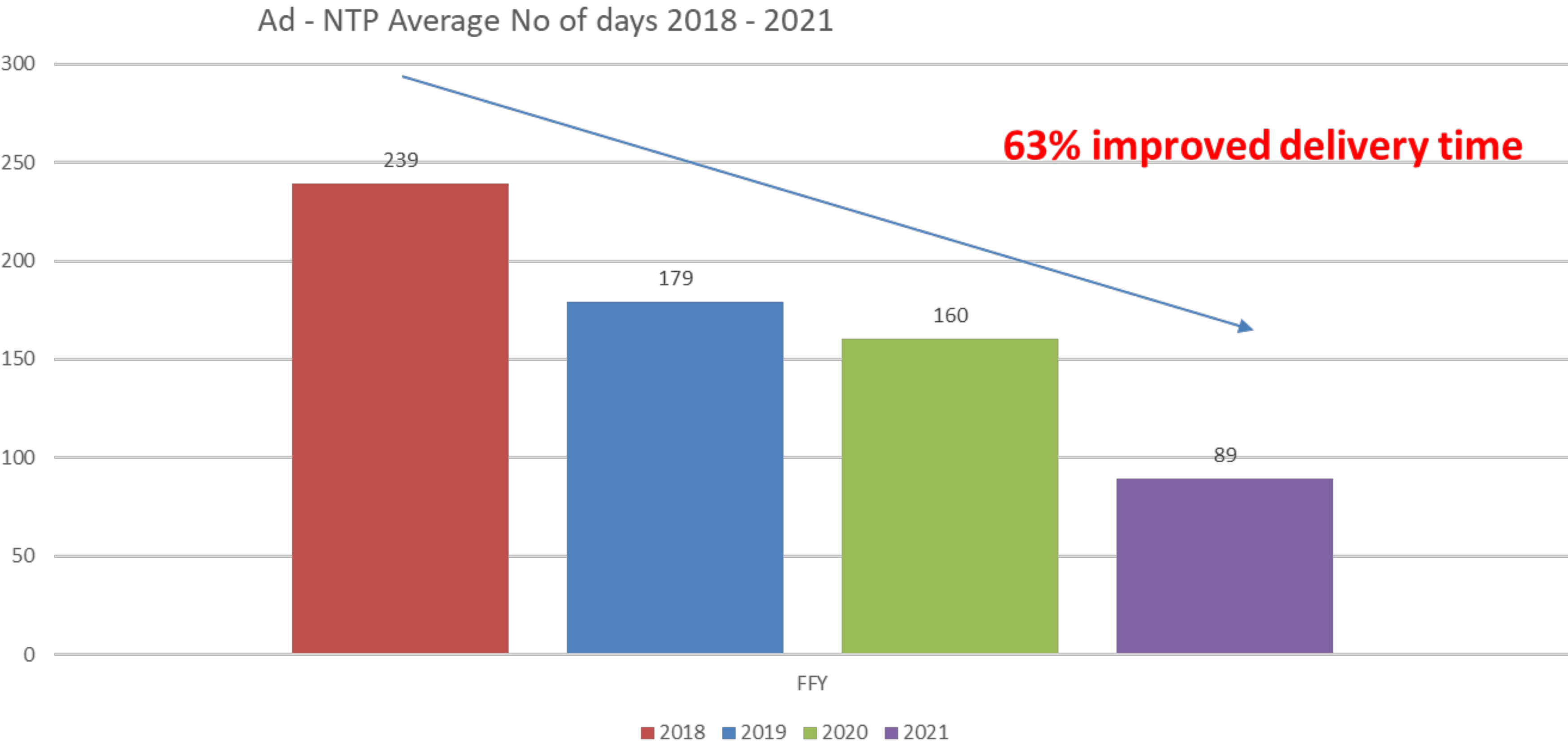
- Utilizing small autonomous teams (workstreams) to tackle discrete segments of the Capital Delivery Process based on Data.
- Establishing appropriate goals and identifying the tasks necessary to achieve them.
- Weekly Scrum of Scrums - communication with project and workstream leadership to provide overall status on progress towards goals.
- Providing summarized updates and dashboard reviews to the Executive Steering Committee.

Project Development	<ul style="list-style-type: none">• Balanced quarterly Ad program• Reliability of Ad program against the STIP
Ad- Bid / Bid Docs before Advertisement	<ul style="list-style-type: none">• Achieving and maintaining a 60-day Ad – Bid duration• Getting Bid Documents (CDSP) ready before Advertisement
Maintenance Standardization	<ul style="list-style-type: none">• Standardizing all various location maintenance projects across districts for Highway Operations, Traffic and Bridge sections
Bid – NTP	<ul style="list-style-type: none">• Achieving and maintain a 60-day Bid – NTP duration

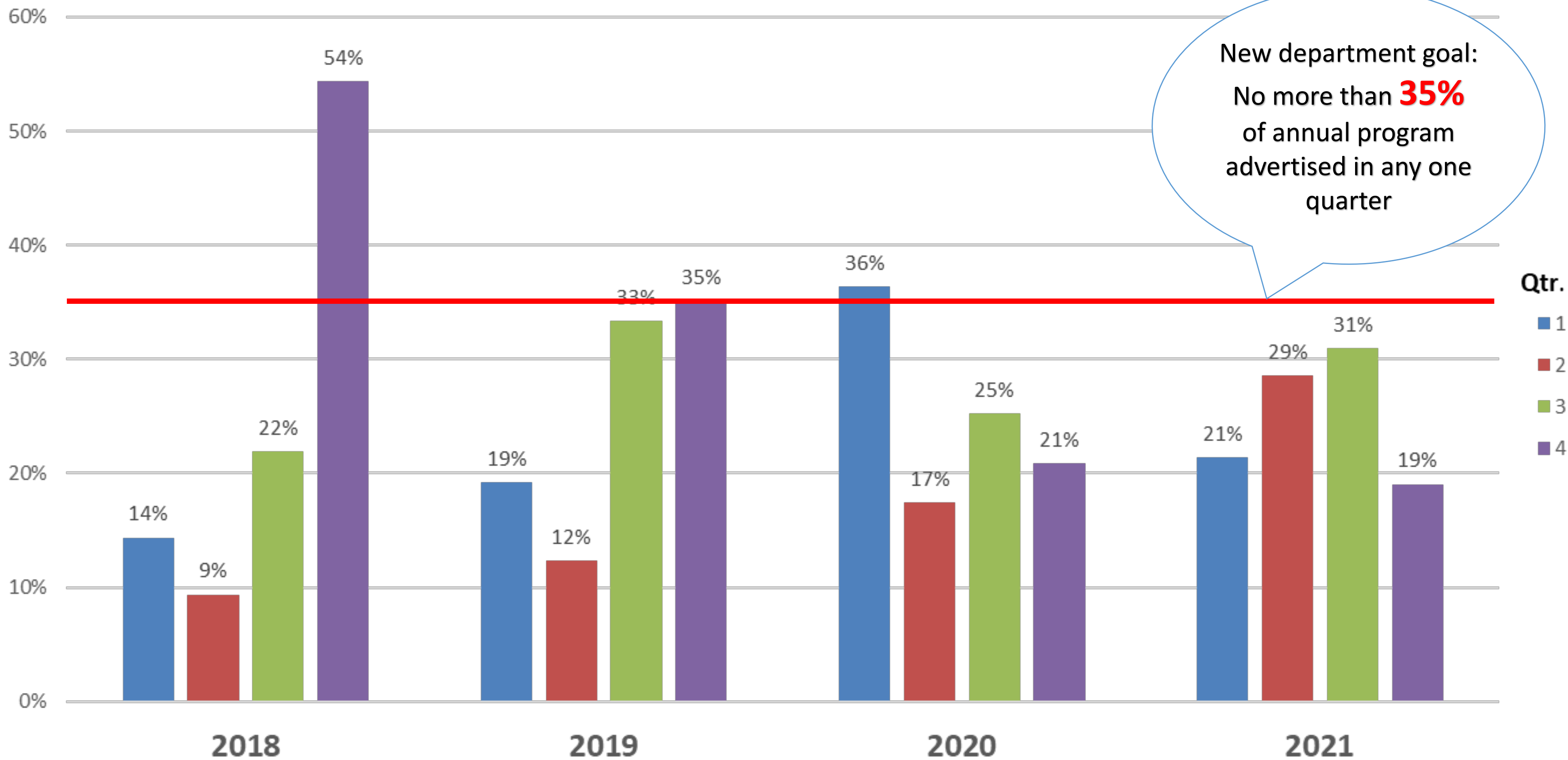
How These Improvements Were Achieved



To Date, 150 days saved on NFA and Federal Aid Project Delivery

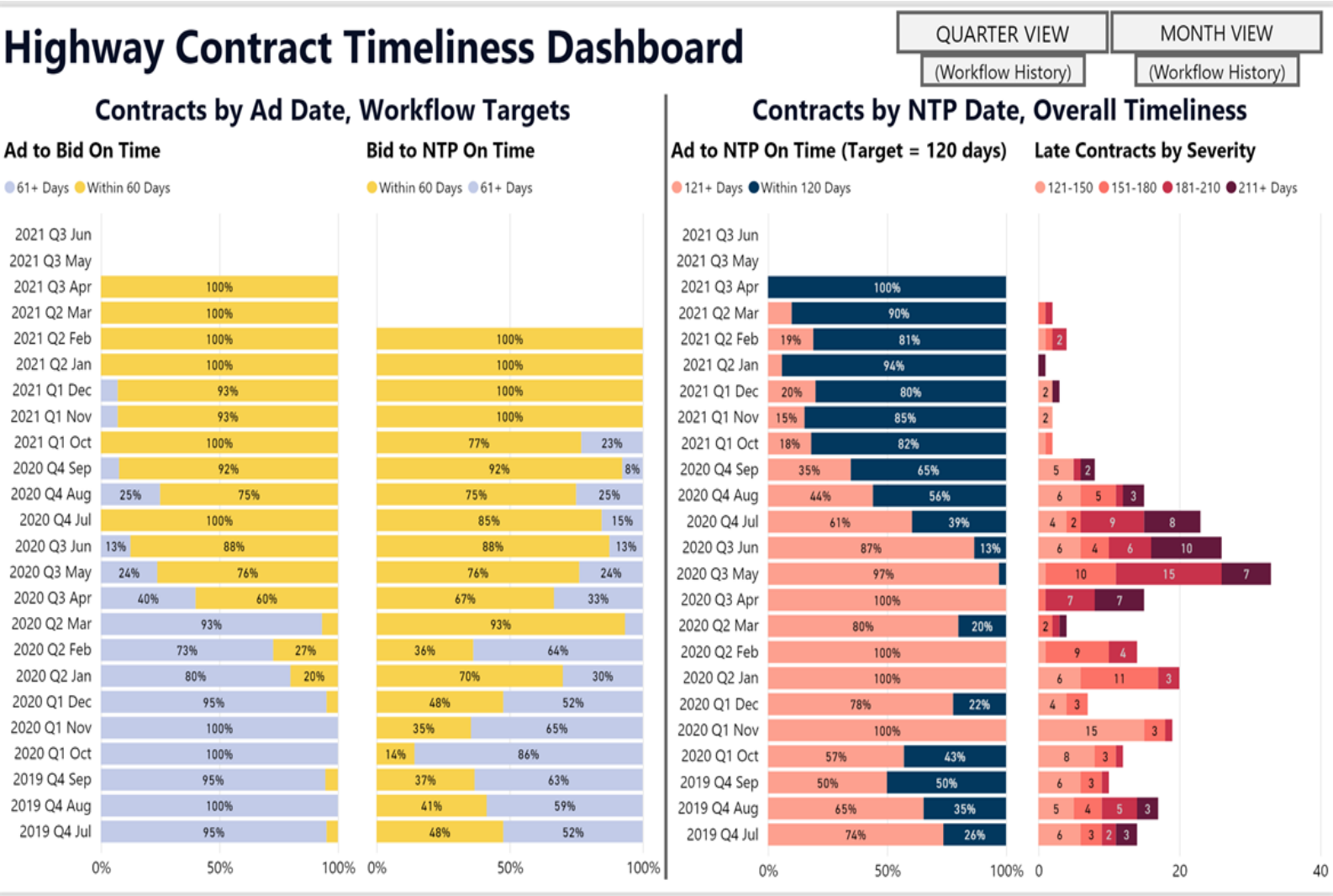
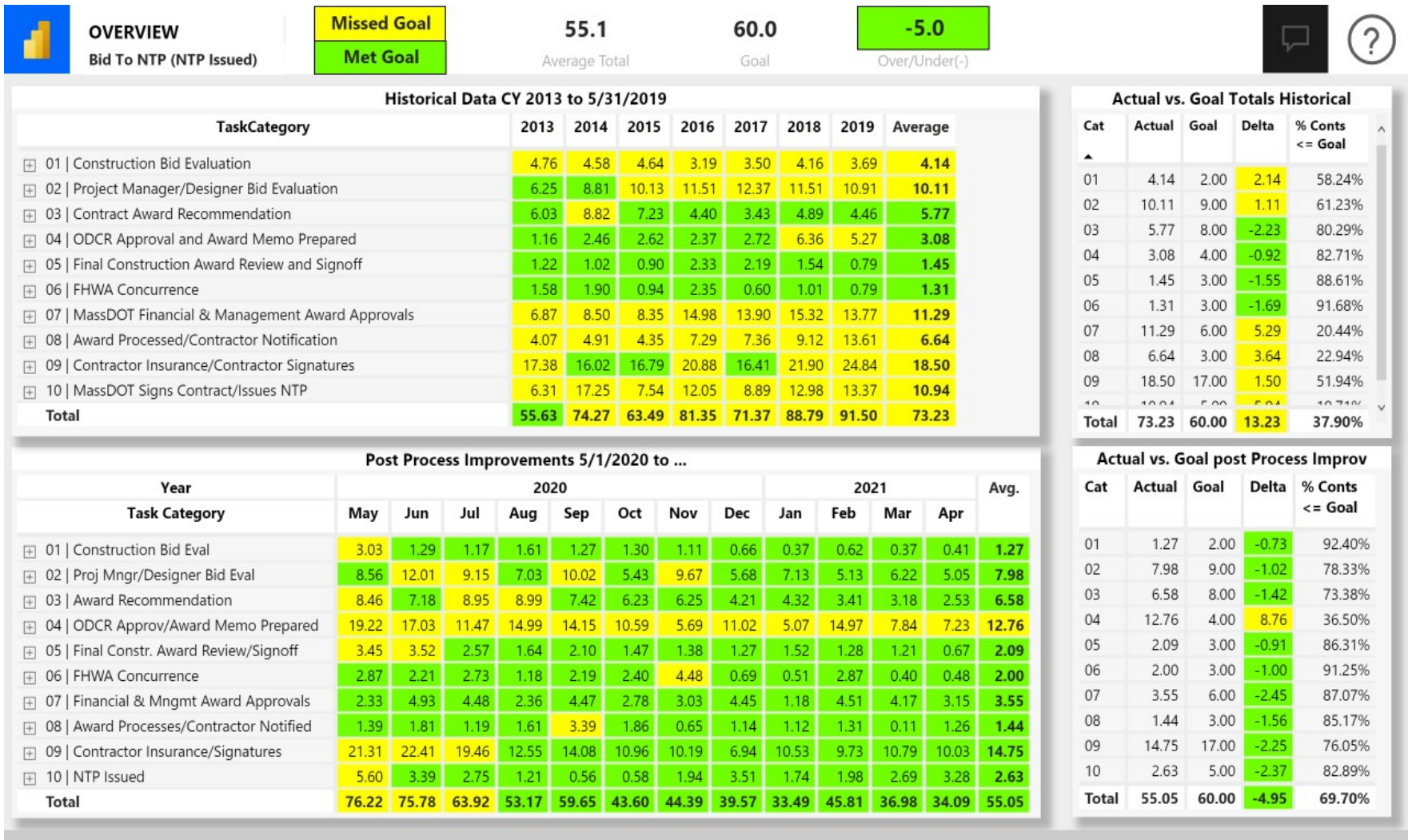


Over the course of four years, Highway has reduced the proportion of projects advertised in the fourth quarter



Keeping on Track

- Weekly monitoring of advertisement program through the Fiscal Year to ensure no quarter exceeds 35% of the total plan
- Tracking and monitoring projects from Advertisement through NTP with goal of <120 days
- Executive Dashboard created to provide high-level insight into the continued effects of process improvement and capacity to accommodate growth



Sustained Success

Highway Division PMO working in concert with MassDOT PMO

- ✓ Ensure teams have the right tools and resources
- ✓ Continue to iterate and learn in order to drive performance of our core functions
- ✓ Remove impediments and blockers to ensure advancement of goals
- ✓ Promote transparency and cross department collaboration
- ✓ Leverage a mindset of ever-evolving efficiencies that can accommodate new developments and areas of expansion

Appendix

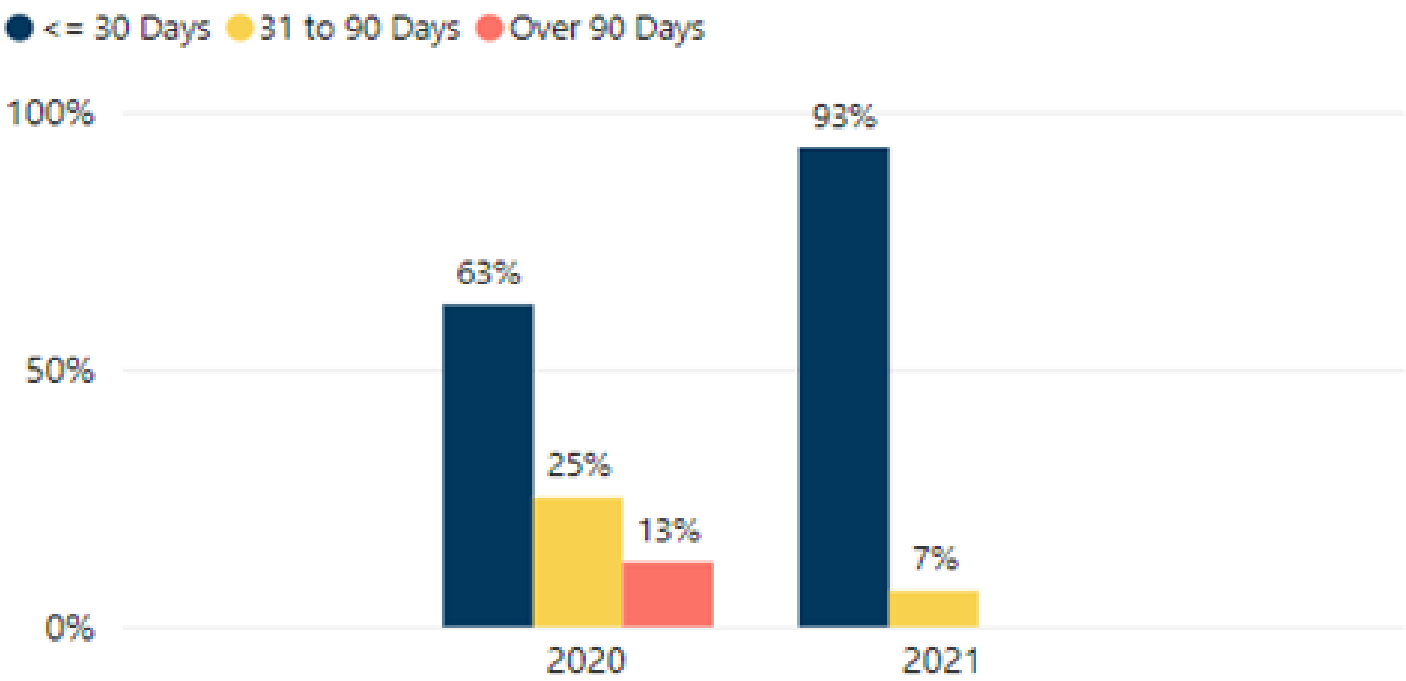
Executive Dashboard

Project Advertising Summary

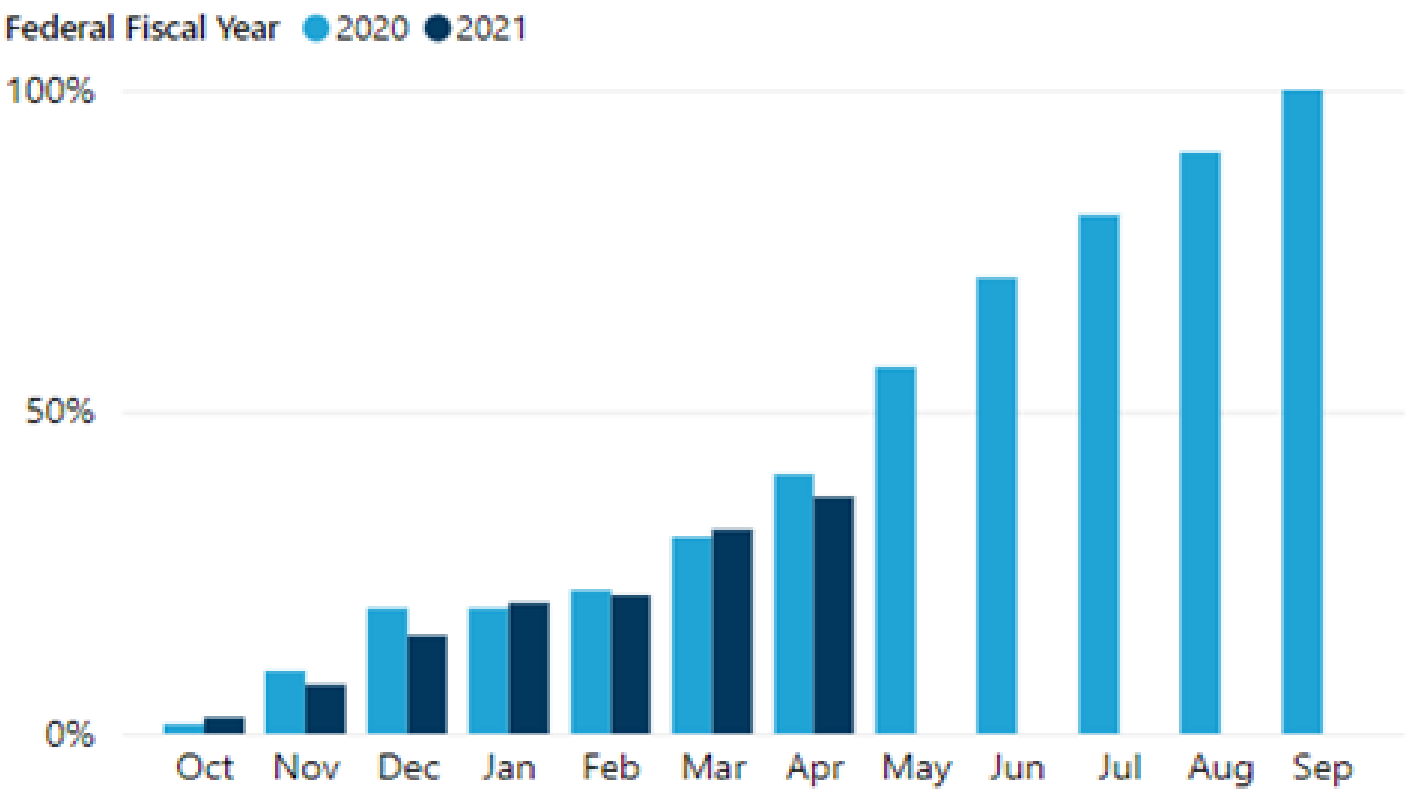
QUARTER VIEW

MONTH VIEW

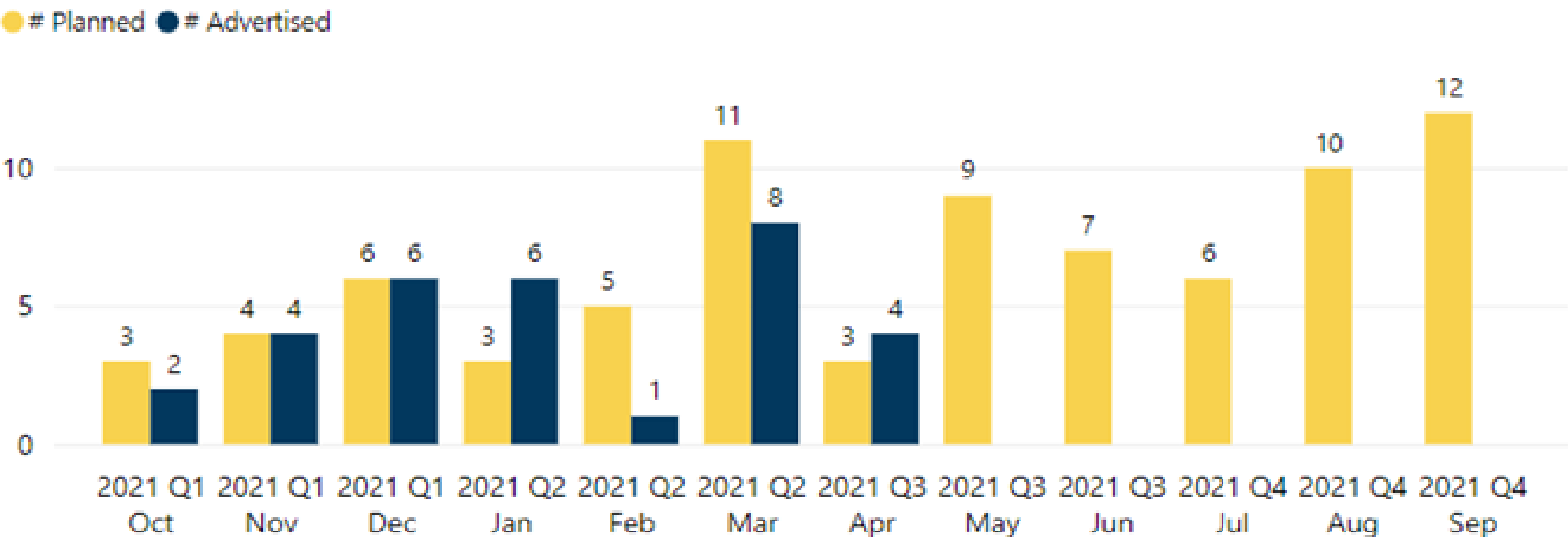
STIP Advertising Performance



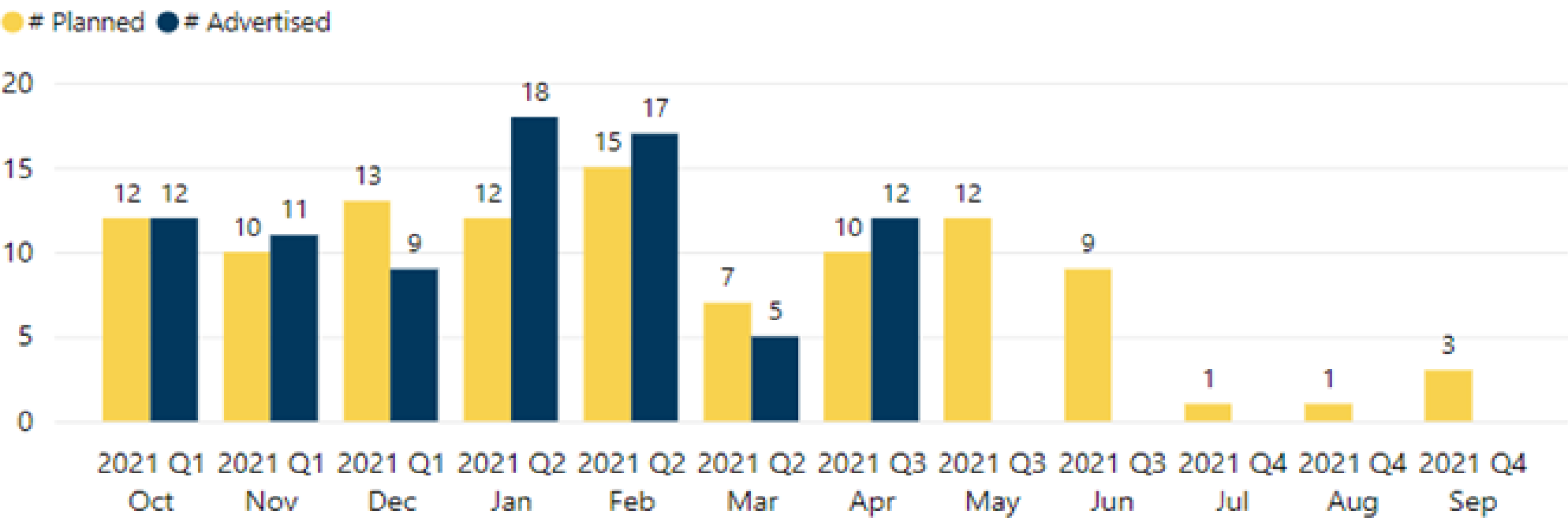
Advertising Progress History: Percent of STIP Advertised



STIP Projects Originally Planned vs. Advertised



Non-STIP Projects Originally Planned vs. Advertised



Note: Redistribution projects may result in the number of projects advertised to exceed the number of projects originally planned for the period.

Executive Dashboard (continued)

Highway Contract Timeliness Dashboard

QUARTER VIEW

(Workflow History)

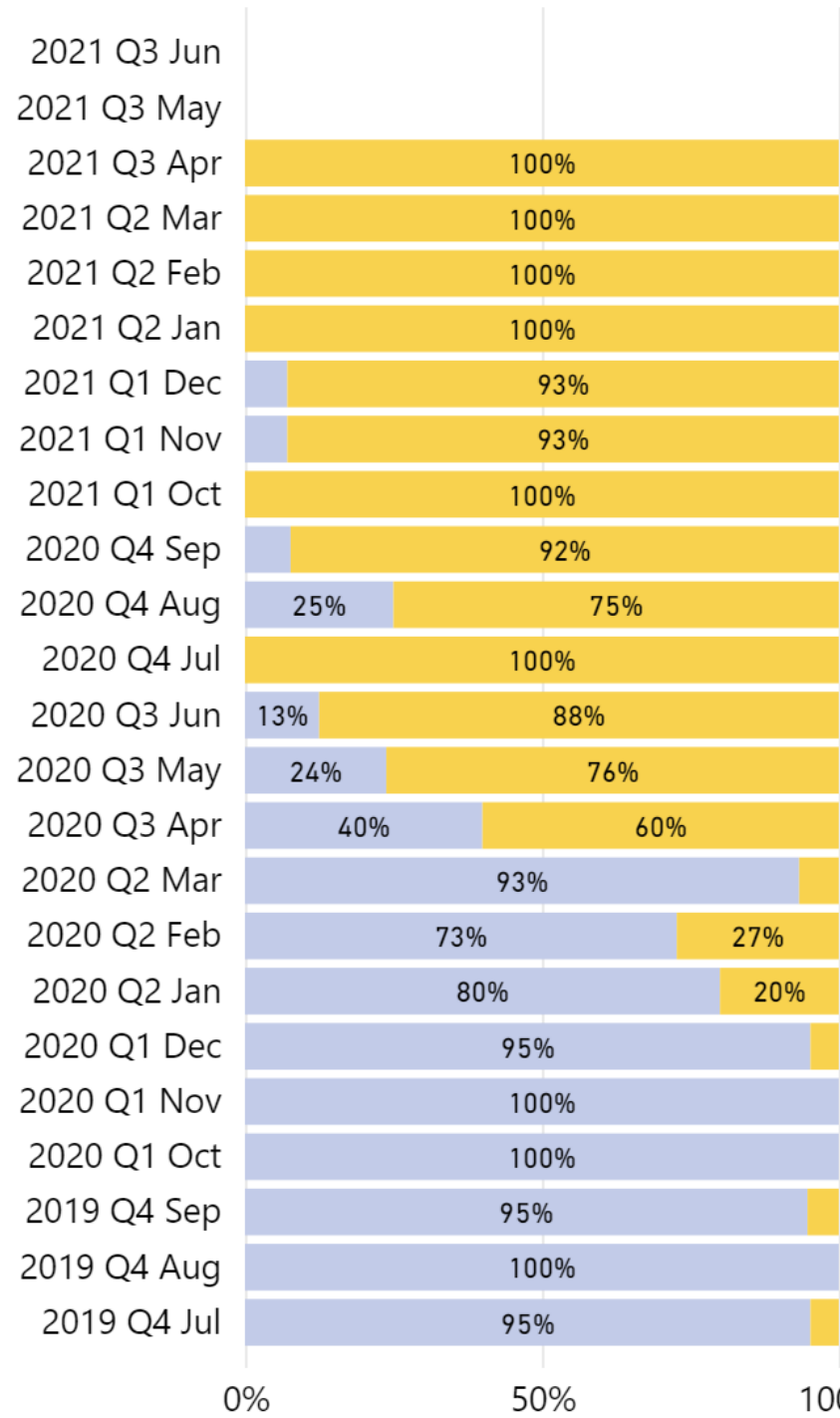
MONTH VIEW

(Workflow History)

Contracts by Ad Date, Workflow Targets

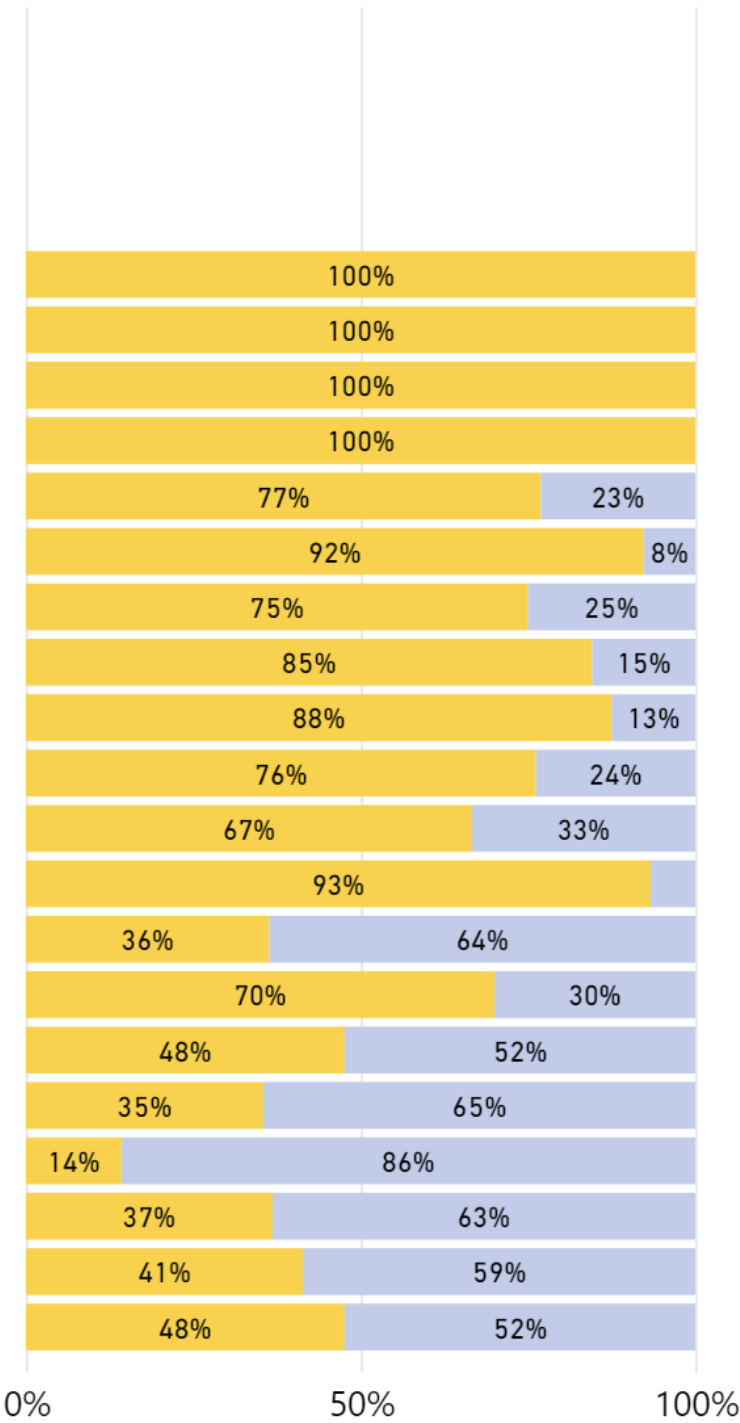
Ad to Bid On Time

61+ Days Within 60 Days



Bid to NTP On Time

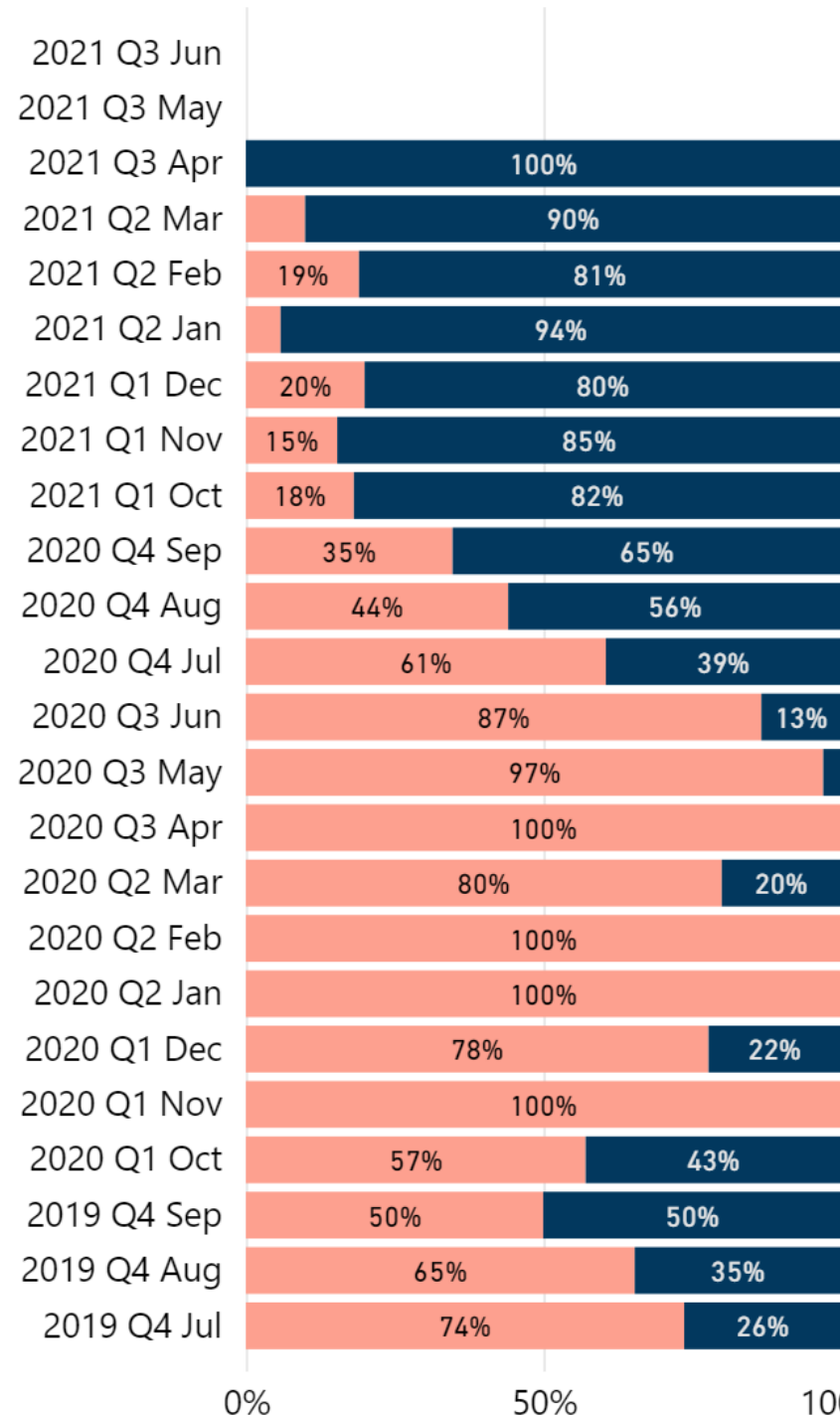
Within 60 Days 61+ Days



Contracts by NTP Date, Overall Timeliness

Ad to NTP On Time (Target = 120 days)

121+ Days Within 120 Days



Late Contracts by Severity

121-150 151-180 181-210 211+ Days

