

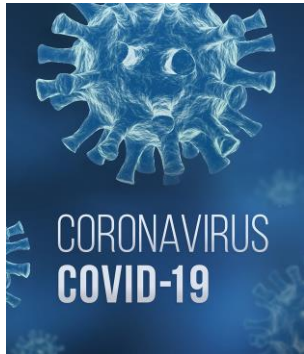


Industry Update Municipal Recycling & Waste Contracts

The Professional Recyclers of Pennsylvania



Top of Mind in 2022



COVID Pandemic Recovery

- Reopening enabling partial volume recovery
- Supply chain impacts to capital costs
- Cases continue to hinder operations in some markets



China Sword / Recycling

- Continued investments in domestic mills and capacity
- Global capacity still well below pre-China Sword levels
- 2021 commodity markets up due to pandemic-induced demand



Industry Wide Challenges

- National CDL driver and technician shortages driving wages up
- Labor shortages attributed to pandemic (eg: Call Center agents)

Our 2030 Sustainability Goals

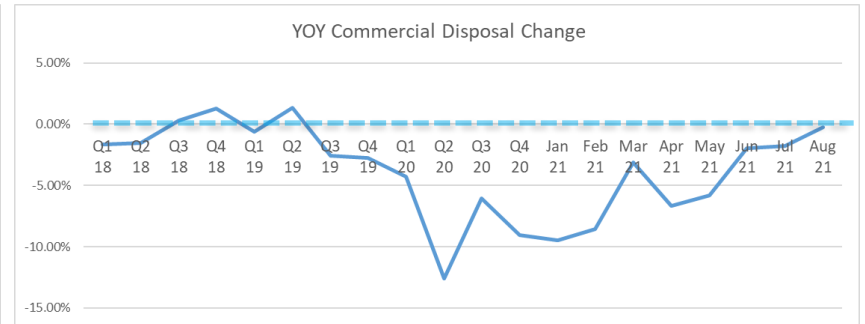
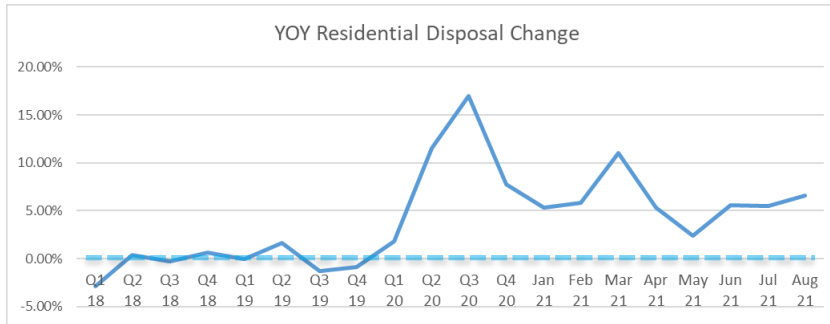


Recycle and MSW RFB tips

- Bulk options
- Yard waste options
- Automation options

The recycling and waste industry is far from “normal” in 2022. We continue to navigate multiple unanticipated headwinds.

Pandemic Volume – Resi Remains Elevated



Residential

- Volume mirrors attempts to restore mobility
- Consistent increase over pre-pandemic levels, driven by continued work-from-home realities

Commercial

- Volumes mirror slow reopening of businesses
- Close to pre-pandemic averages

Industrial

- No significant changes

Are residential volumes at a new norm?
Continued work-from-home volume drives economic headwinds from additional disposal costs, in the lowest price line of business.

Pandemic Impacts to Supply Chain and Capital

Price of steel continues to soar

Hot-Rolled Coil Steel Futures Continuous Contract

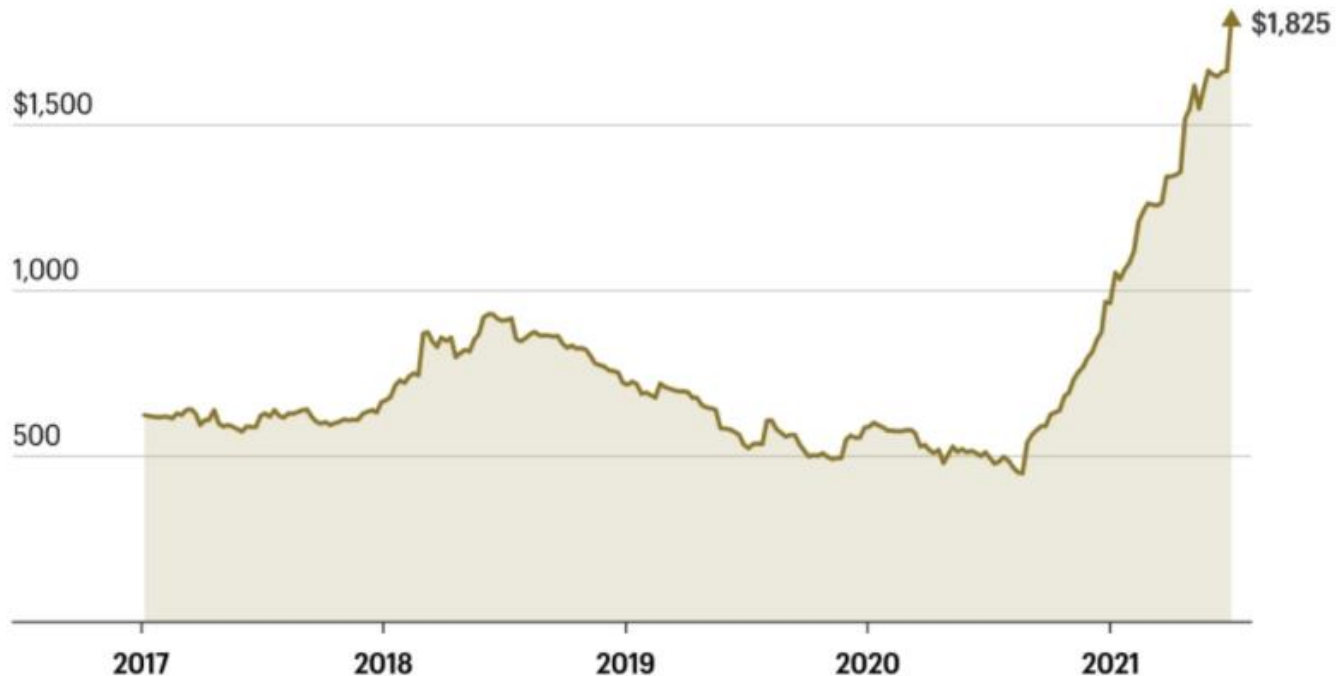
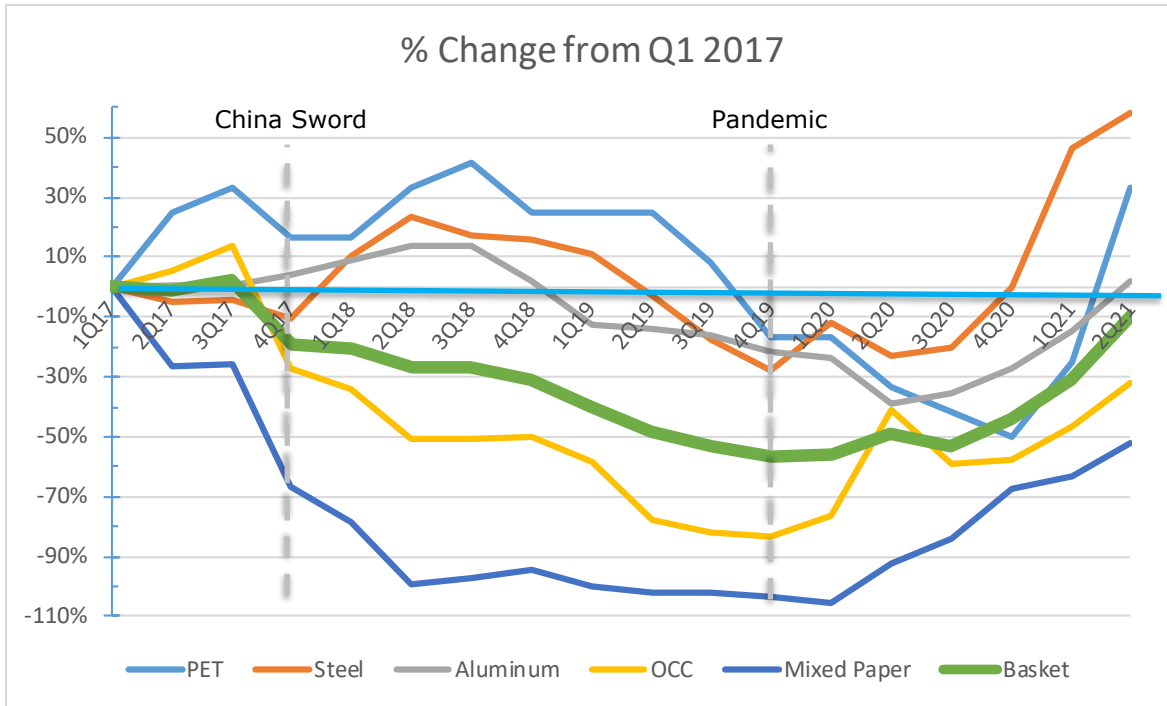


CHART: LANCE LAMBERT • SOURCE: MARKETWATCH

FORTUNE

Our industry is extremely capital intensive, requiring careful navigation of escalating costs.

Recycling: Commodity Trends



% of Republic Services Material Sold

	2019	2020	2021*
PET	4.5%	4.9%	4.5%
Steel	1.8%	1.6%	1.3%
Alum	1.2%	1.4%	1.3%
OCC	50%	53%	54%
Mix Paper	25%	23%	24%

Source: STIFEL, June 2020 and June 2021

* - 2021 "Basket" is based on Jan. through July data

Residential tons are up... and commodity values are improving.
Is your Municipality missing out on the upside?

Proper Business Model

Republic Services

Cities & Municipalities

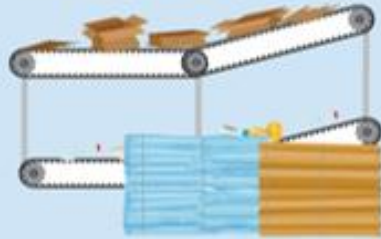
COLLECTION

- Includes costs for truck, driver, container and to collect material and transport to a processing facility
- Comparable to trash collection



PROCESSING

- Includes costly facility, equipment and labor to separate material and remove contamination
- Results in ready-to-ship baled material



RESIDUAL

- Includes all contaminated or non-recyclable material, which has no marketability and must be transported and disposed at a landfill for additional cost



COMMODITY SALES

- Sale of processed material to buyers around the world
- Cleaner material has greater value



**COLLECTION
FEE**



PROCESSING FEE

COLLECTION AND PROCESSING

**(RESIDUAL
DISPOSAL)**

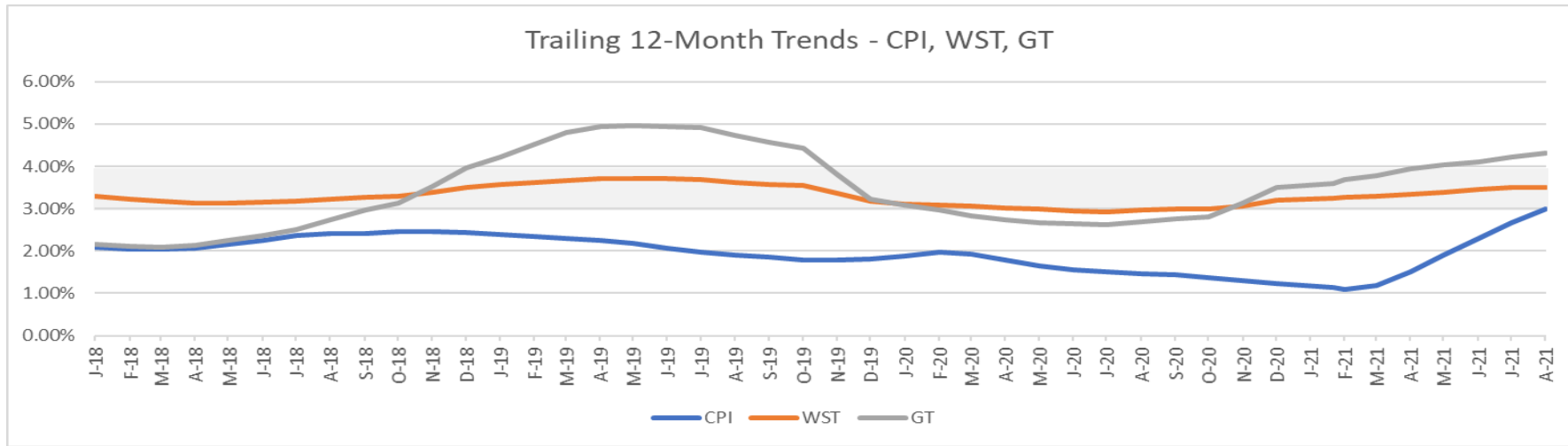


**COMMODITY
SALES**

NET COMMODITY VALUE

Recycling Collection and Processing should stand alone, allowing the Municipality to benefit from the Net Commodity Value.

Annual Price Increase – Are You Exposed?

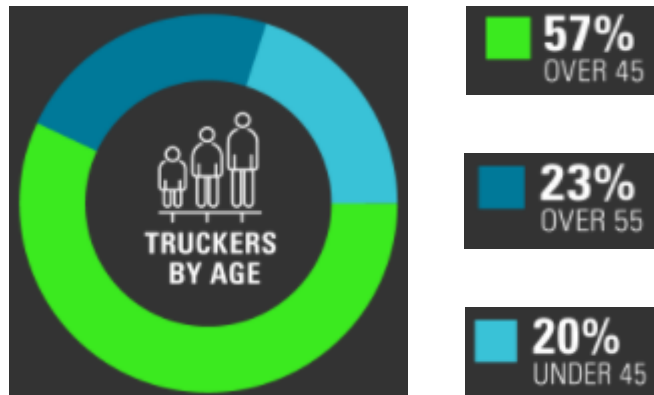


	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>
CPI Monthly	1.40%	1.68%	2.62%	4.16%	4.99%	5.39%	5.37%
WST Monthly	3.57%	3.61%	3.53%	3.55%	3.44%	3.57%	3.69%
GT Monthly	4.42%	4.62%	4.69%	4.88%	4.34%	4.13%	4.54%

CPI will exceed industry average cost increases by end of 2021.

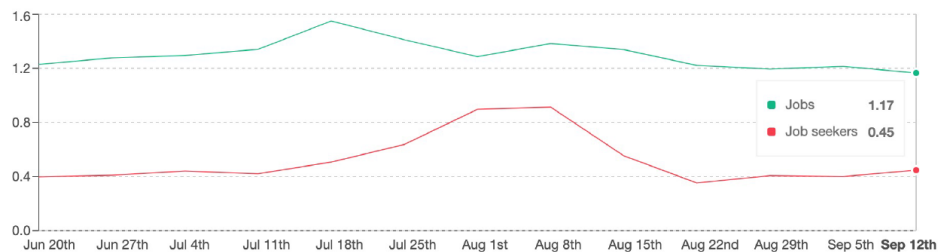
Cities not on WST or GT should change quickly to protect themselves and align with the proper industry index.

National CDL Driver Shortage



- **Fewer Drivers** – Younger workers are not entering the driver industry at a rate high enough to replace an aging driver workforce

Job Volume and Job Seeker Change – Commercial Driver



- **Growing Gap** – Open positions vs applicants
 - CDL Job Volume +17%
 - CDL Job Seeking -55%

Sources: Coyote Collective Report, EMSI Report, 2021
Indeed – US Data, August 2021

The growing gap between positions and applicants are forcing companies to offer higher pay, including \$5-10k signing bonuses and more time off.

Bid spec recommendations

Automation must be considered

Bulk must be limited

6–8-month lead time for RFB's



“Robotic arm trucks have a number of advantages including requiring fewer workers. Manual trucks require three employees at a time, a driver and two to load the garbage. Automation can reduce the number of employees per truck down to one and lower injuries”

Bid spec recommendations

Limited Yard waste options

Work with the contractors to find the appropriate schedule for your residents



"Yard waste is highly labor intensive; disposal sites are few and far between and there no compaction of the material" "Even bigger than that, it is an unknown variable"

Takeaways



Understand the various factors impacting your contracts on a weekly/monthly basis



Reset your Residential collection rates to reflect and **recognize the new normal** going forward



Update your Recycling program to pay for the service rendered, and **allow the Municipality to benefit from commodity values**



Amend the Annual Price Increase term to WST, GT or a Fixed rate that aligns with industry averages, **before rising CPI hits your contract**



Partner in these tough times as your current partner works to navigate these effects of China Sword and the pandemic

Municipal contracts are based on long-term assumptions that are now overtaken by events and must be **updated to ensure they align with the new normal.**