

Comparison of 2020 BTEX Concentrations in New Jersey with Recent Data from 2015-2019

The Impact of the “Stay at Home” Directive on Air Quality in New Jersey

NJDEP Bureau of Air Monitoring

1/20/2021

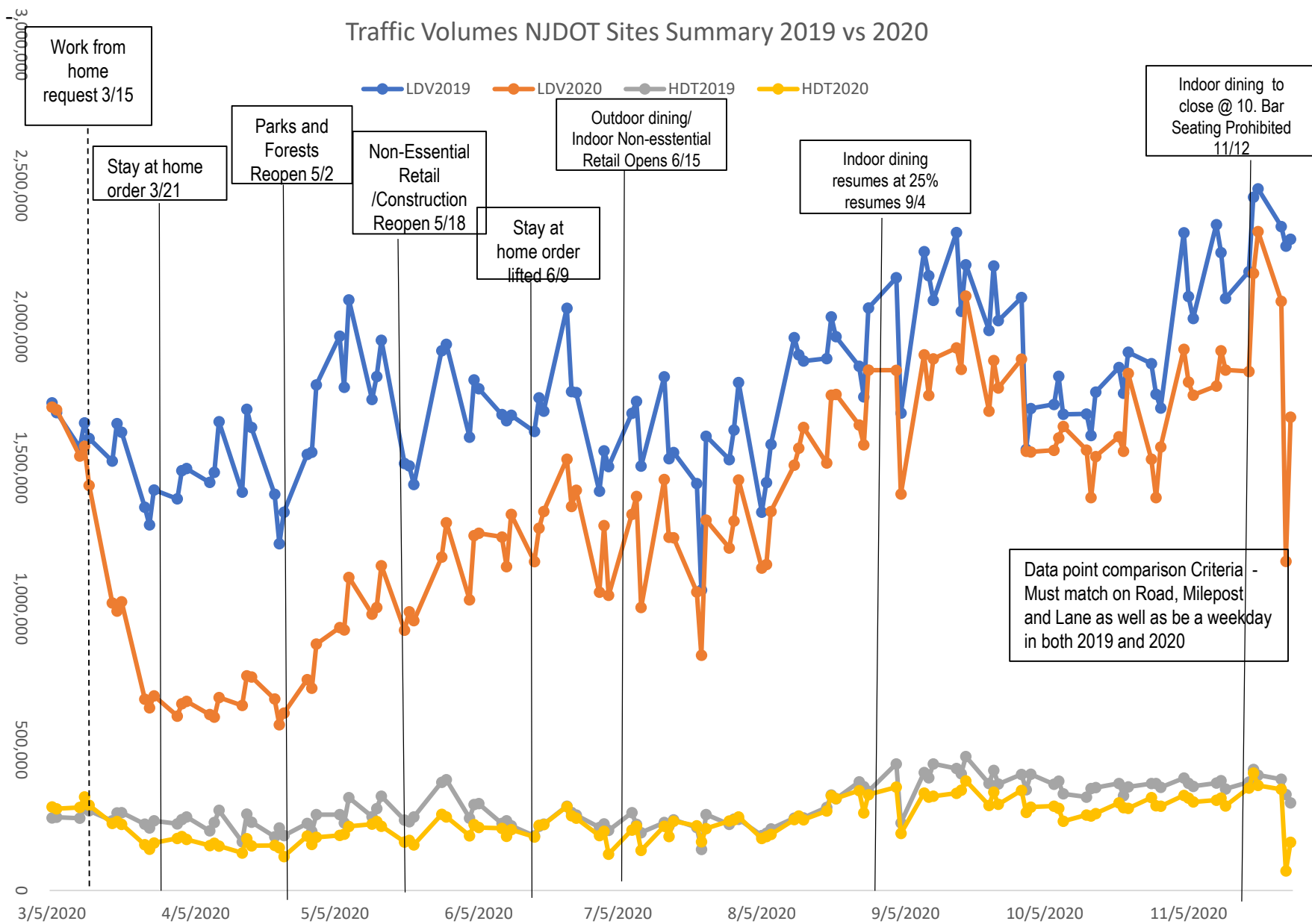
Stay at Home: Executive Order 107, 3/21/20

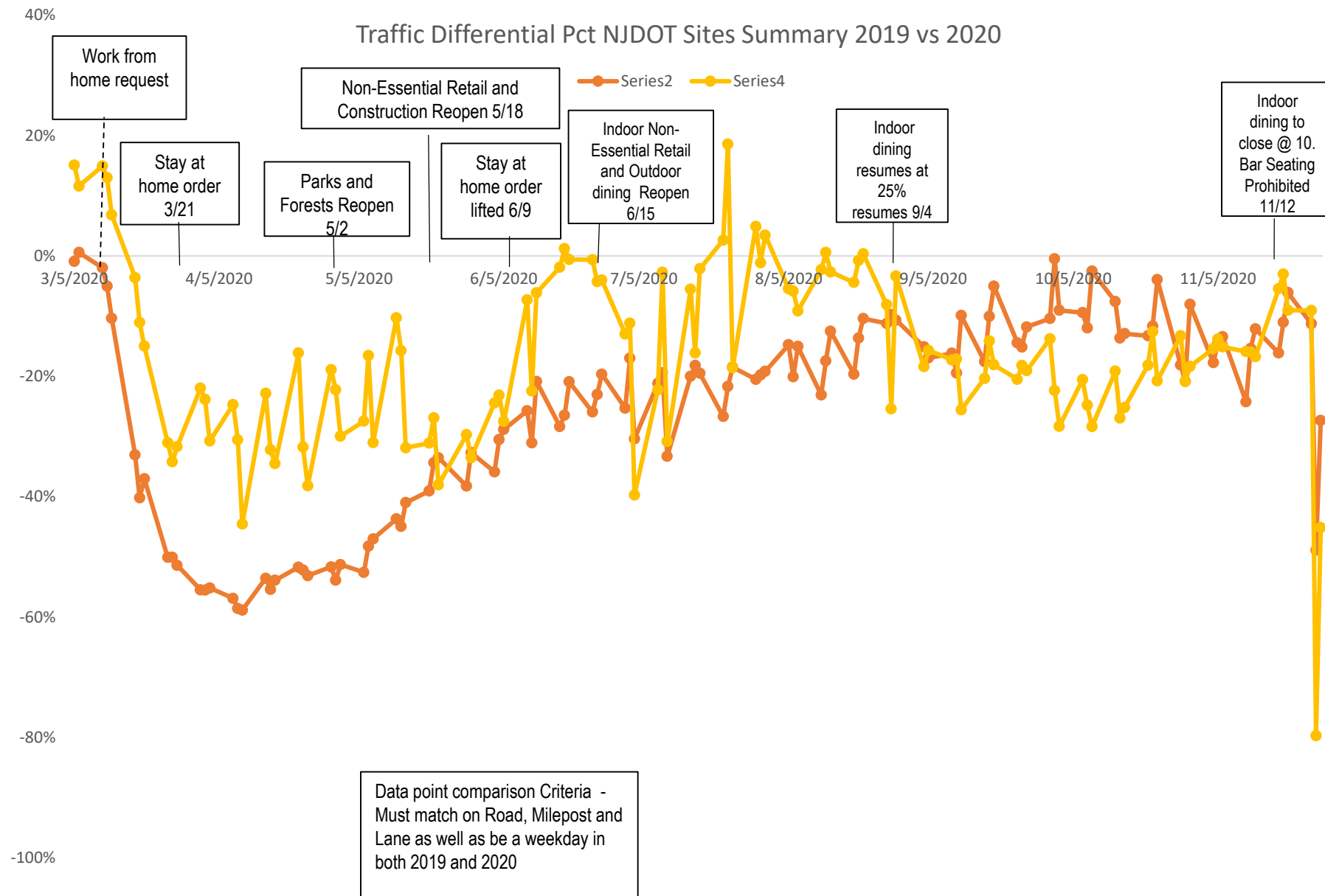
- Office workers work from home.
- All schools and colleges closed; study from home.
- Closure of all non-essential retail businesses
- Closure of all recreational and entertainment businesses.
- All non-essential construction projects must stop.
- Restrictions eased on 5/18/20 (Stage 1) and 6/15/20 (Stage 2)

Results by end of March 2020:

- 50% reduction in light duty vehicle traffic
- 30% reduction in heavy duty vehicle traffic
- 5%-14% reduction in power use (b,c)

7:30





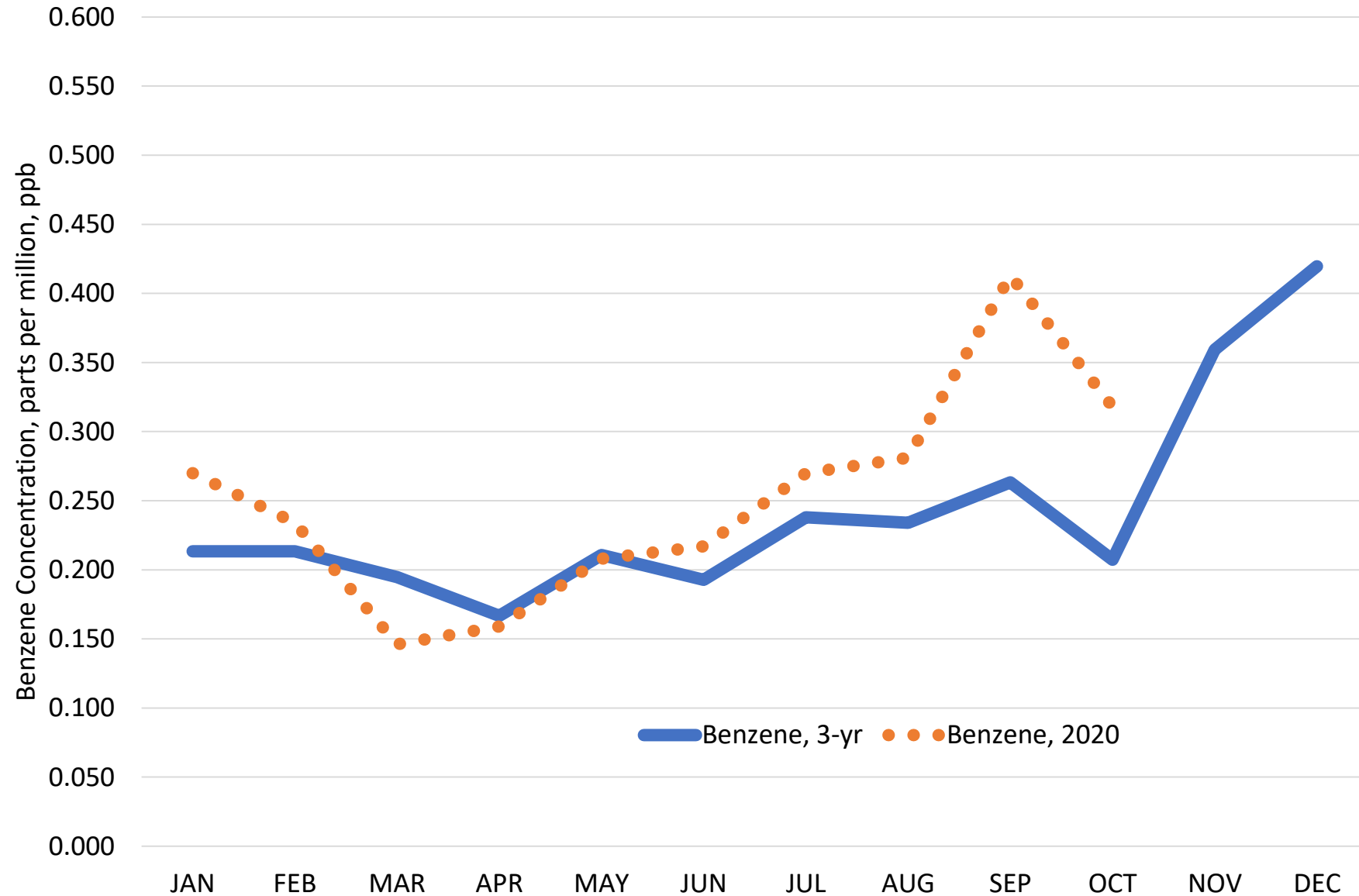
Hourly BTEX Data Available at 5 Stations

- Bayonne, Camden, Elizabeth (Exit 13), Fort Lee, Newark
- Benzene, Toluene, Ethylbenzene, o-Xylene & m,p-Xylene
- Automated gas chromatography, analysis by photo-ionization detection (PID)
- Analysis completed on 4 stations (some data is preliminary and subject to change)
 - Bayonne
 - Camden Spruce Street
 - Elizabeth Lab (NJ Turnpike Exit 13)
 - Newark Firehouse
- BTEX in motor vehicle emissions

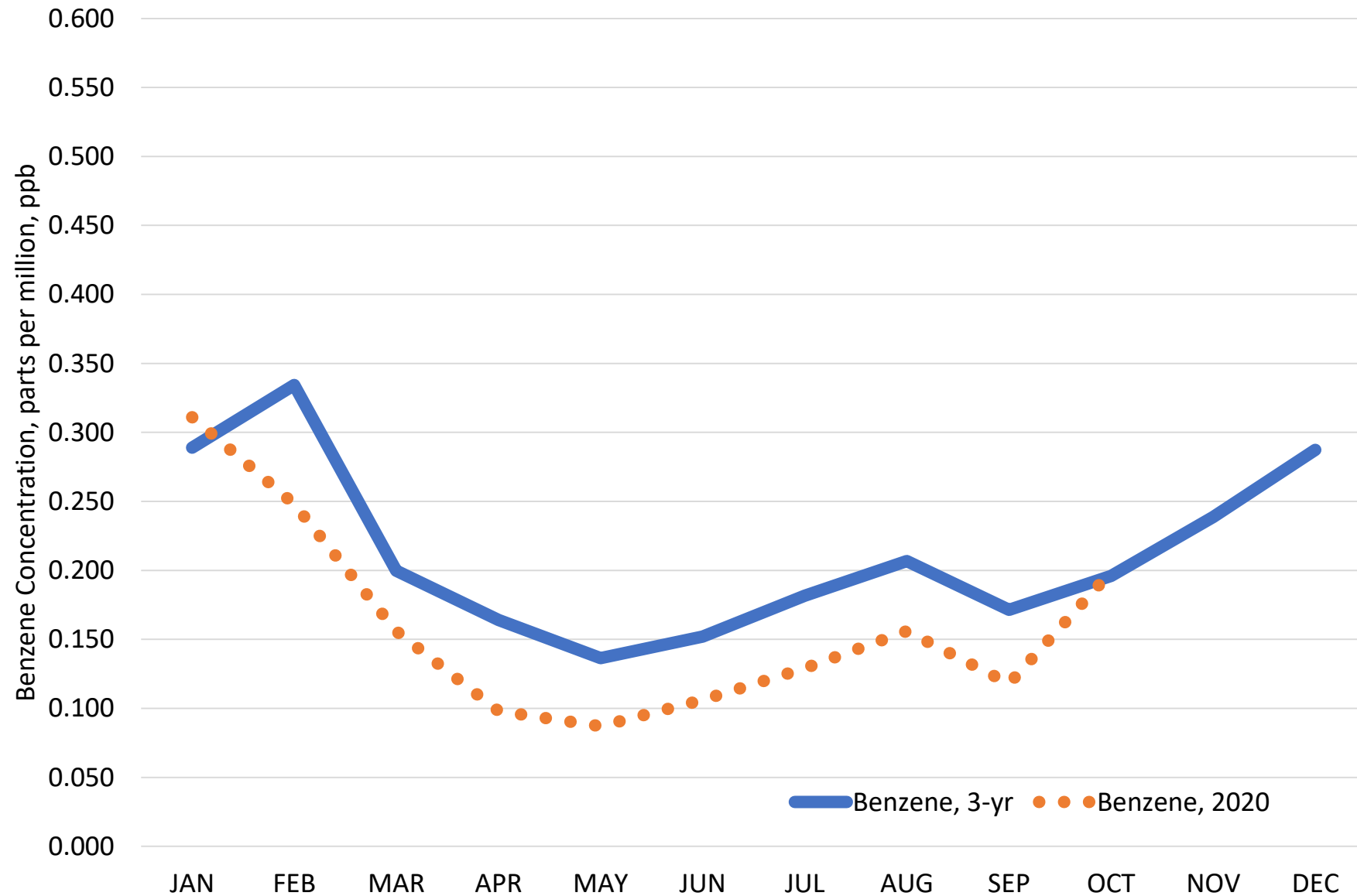
Benzene

Bayonne, Camden, Elizabeth (Exit 13), Newark Firehouse

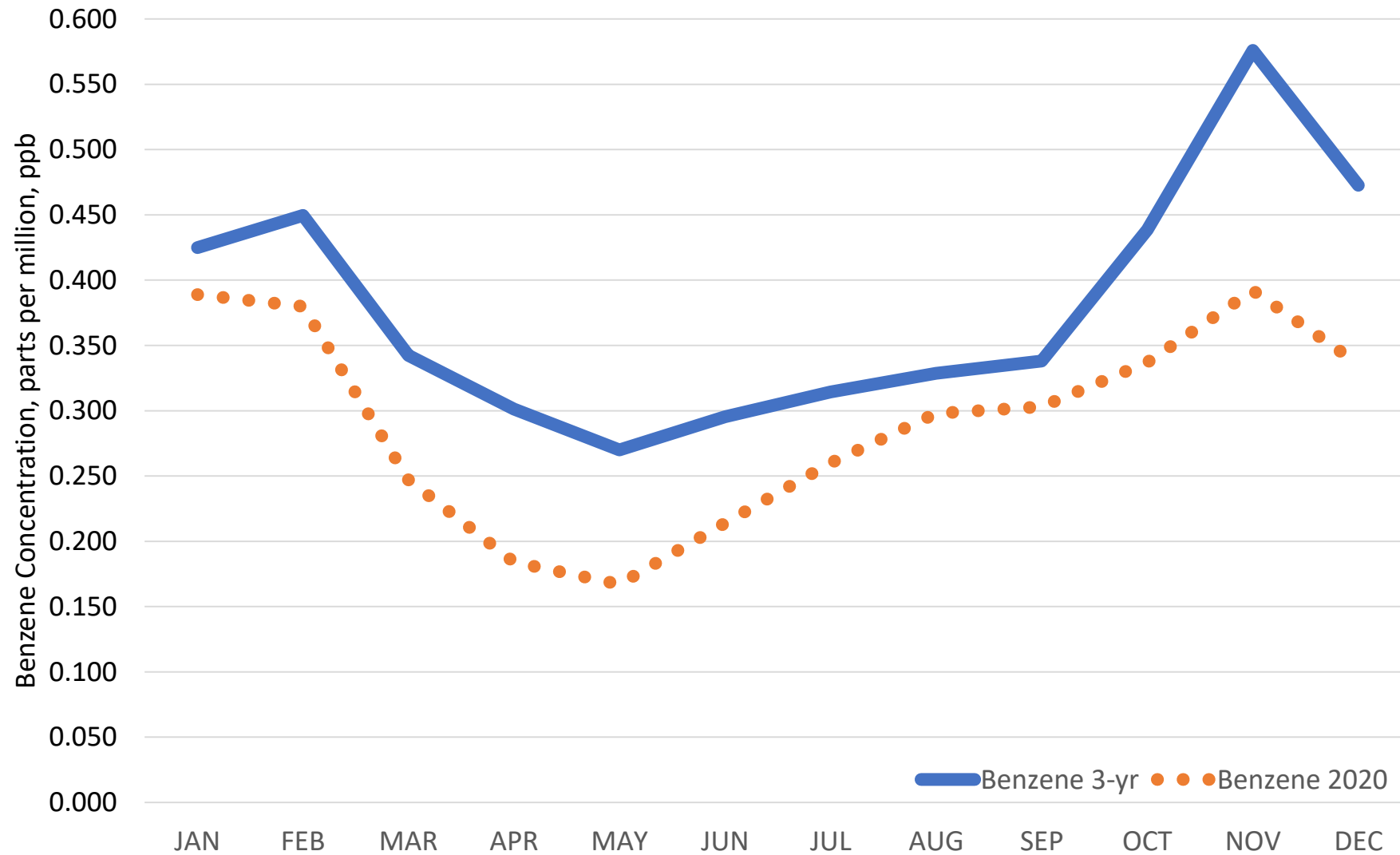
Comparison of 3-Year Average (2015, 2016, 2019) Monthly Benzene Concentrations with 2020 Monthly Benzene Concentrations at Bayonne



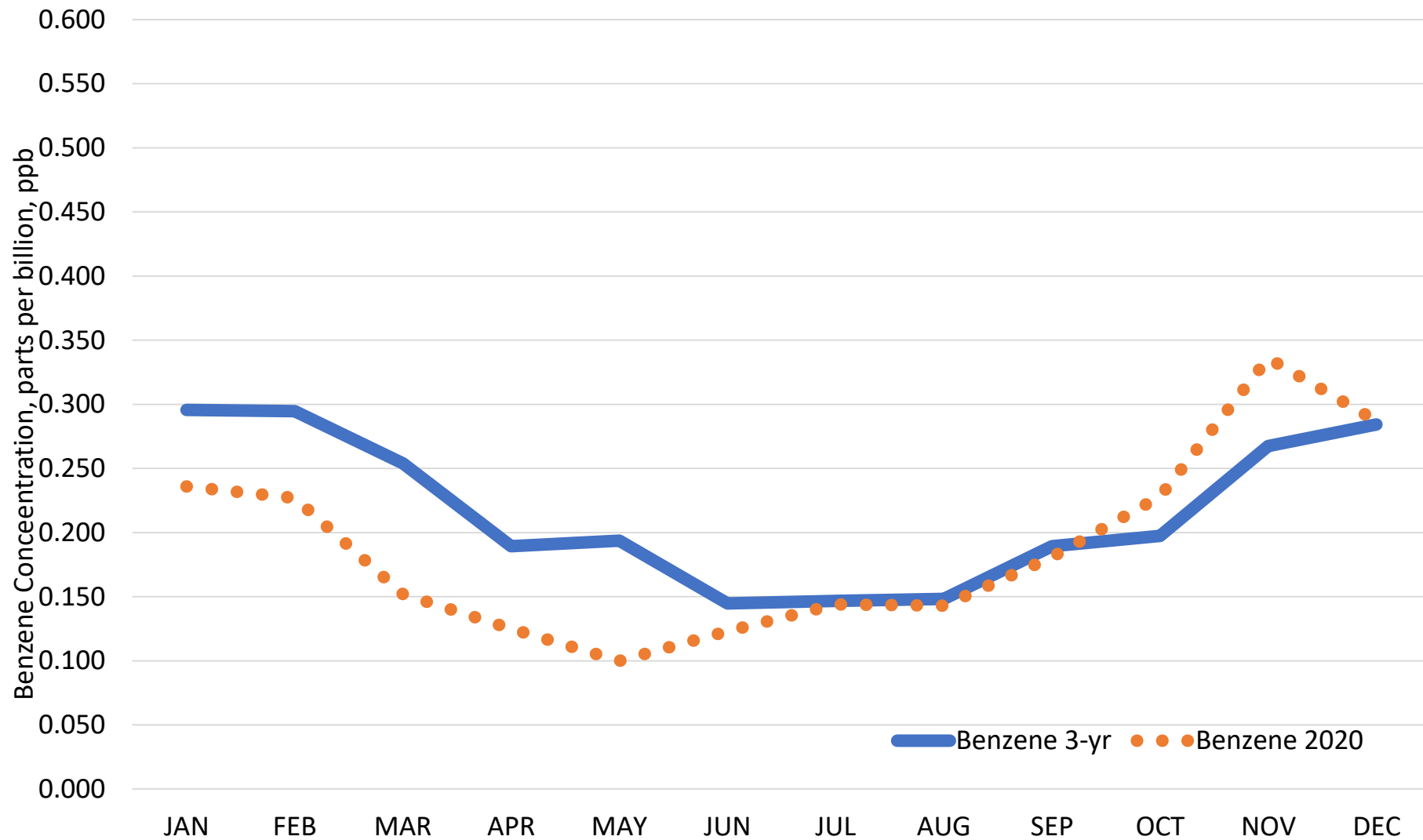
Comparison on 3-Year Average (2017, 2018, 2019) Monthly Benzene Concentrations with 2020 Monthly Benzene Concentrations at Camden



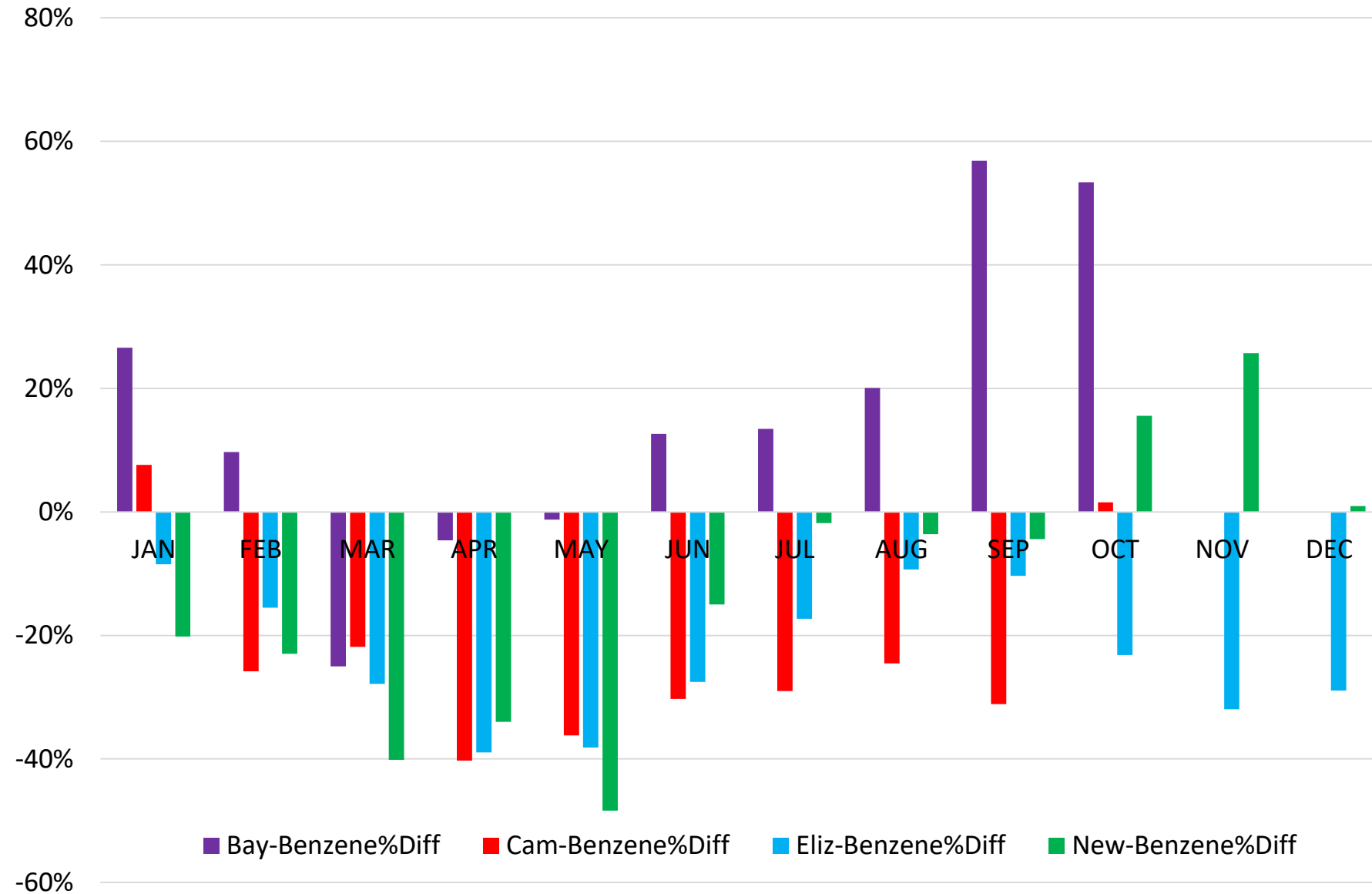
Comparison on 3-Year Average (2016, 2017, 2019) Monthly Benzene Concentrations with 2020 Monthly Benzene Concentrations at Elizabeth



Comparison on 3-Year Average (2015, 2016, 2019) Monthly Benzene Concentrations with 2020 Monthly Benzene Concentrations at Newark



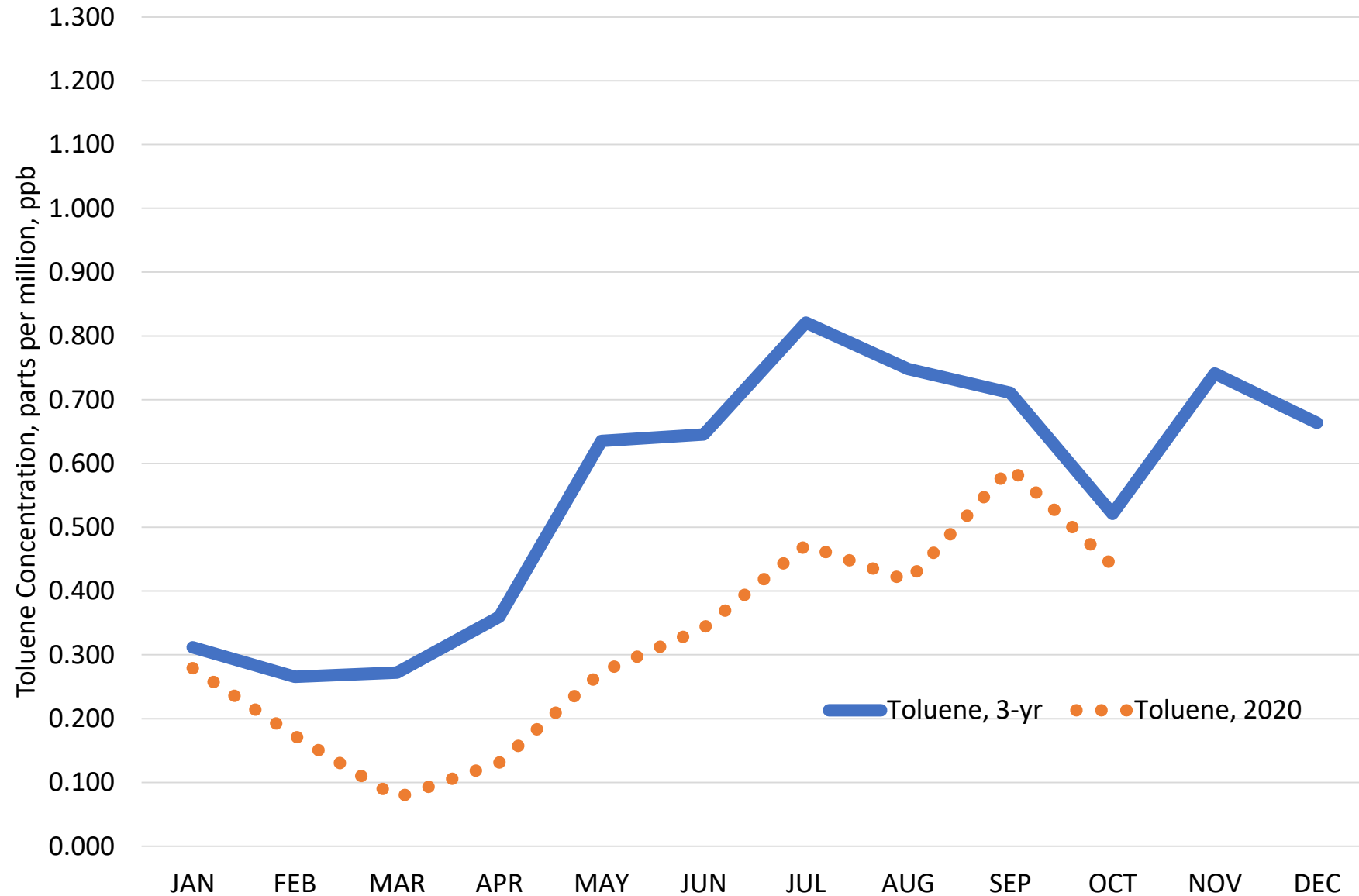
Percent Difference of 3-Year Averaged Monthly Benzene Concentrations Versus
2020 Benzene Concentrations at Bayonne, Camden, Elizabeth (Exit 13) and Newark



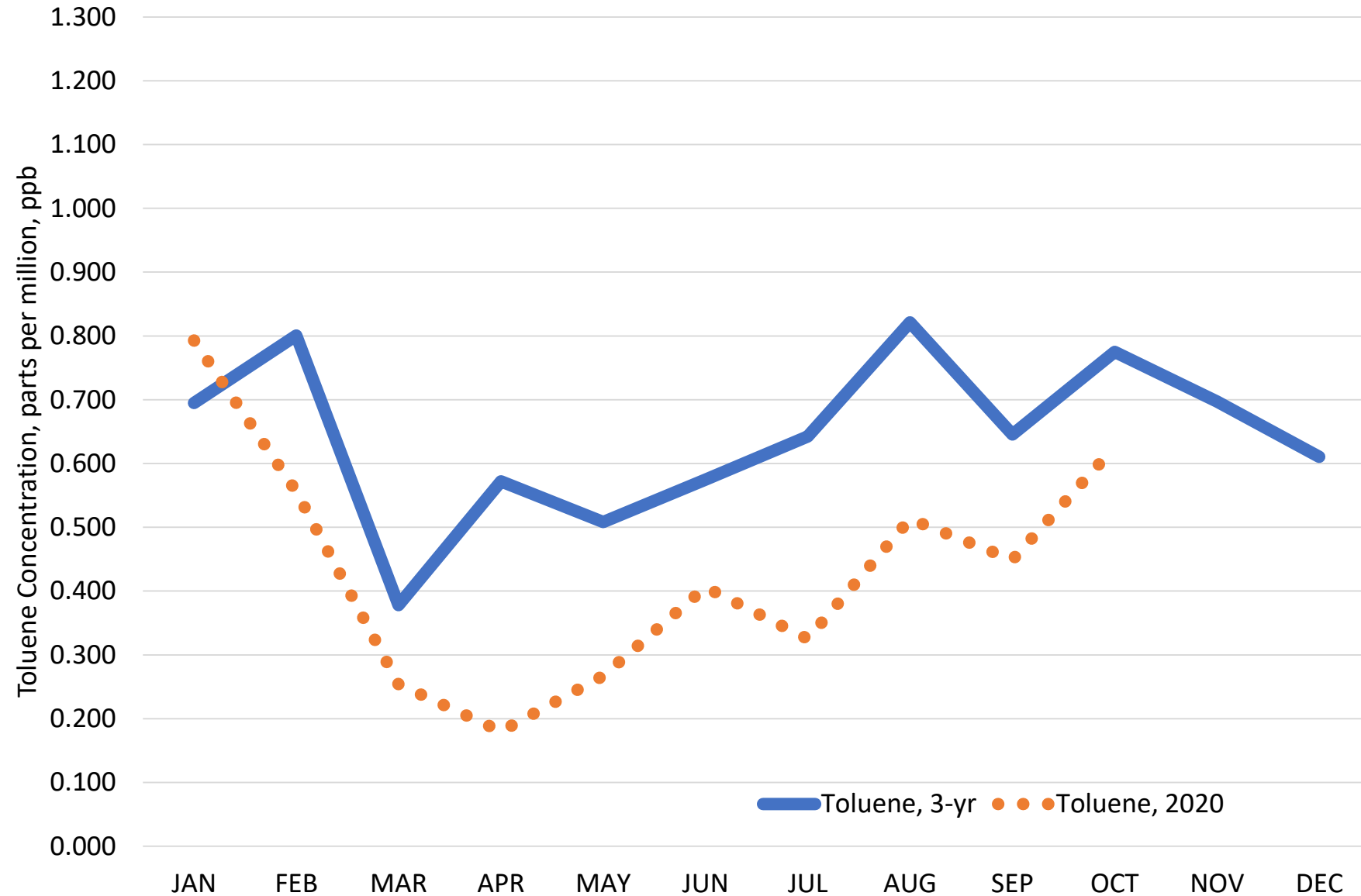
Toluene

Bayonne, Camden, Elizabeth (Exit 13), Newark Firehouse

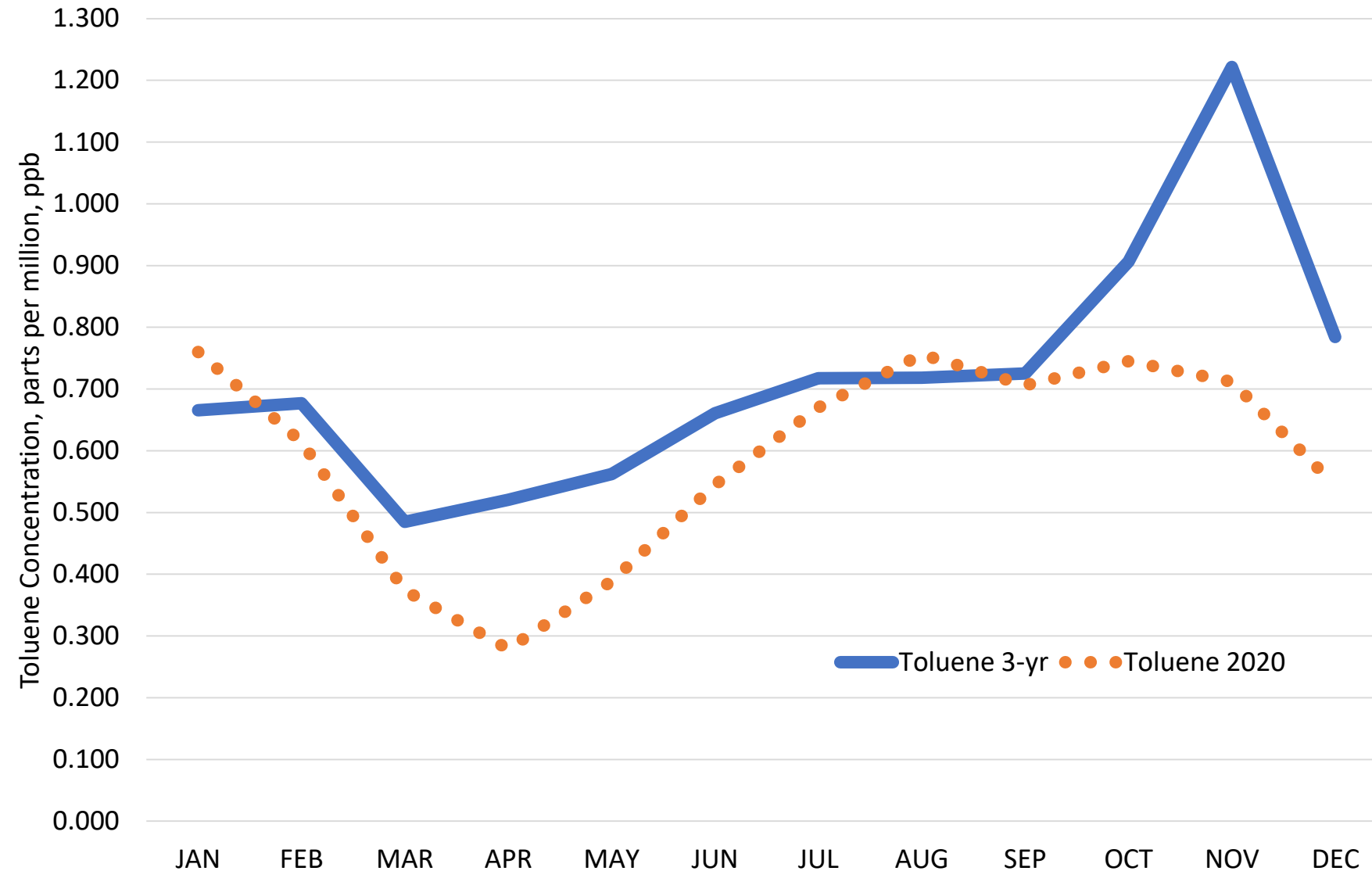
Comparison of 3-Year Average (2015, 2016, 2019) Monthly Toluene Concentrations
with 2020 Monthly Toluene Concentrations at Bayonne



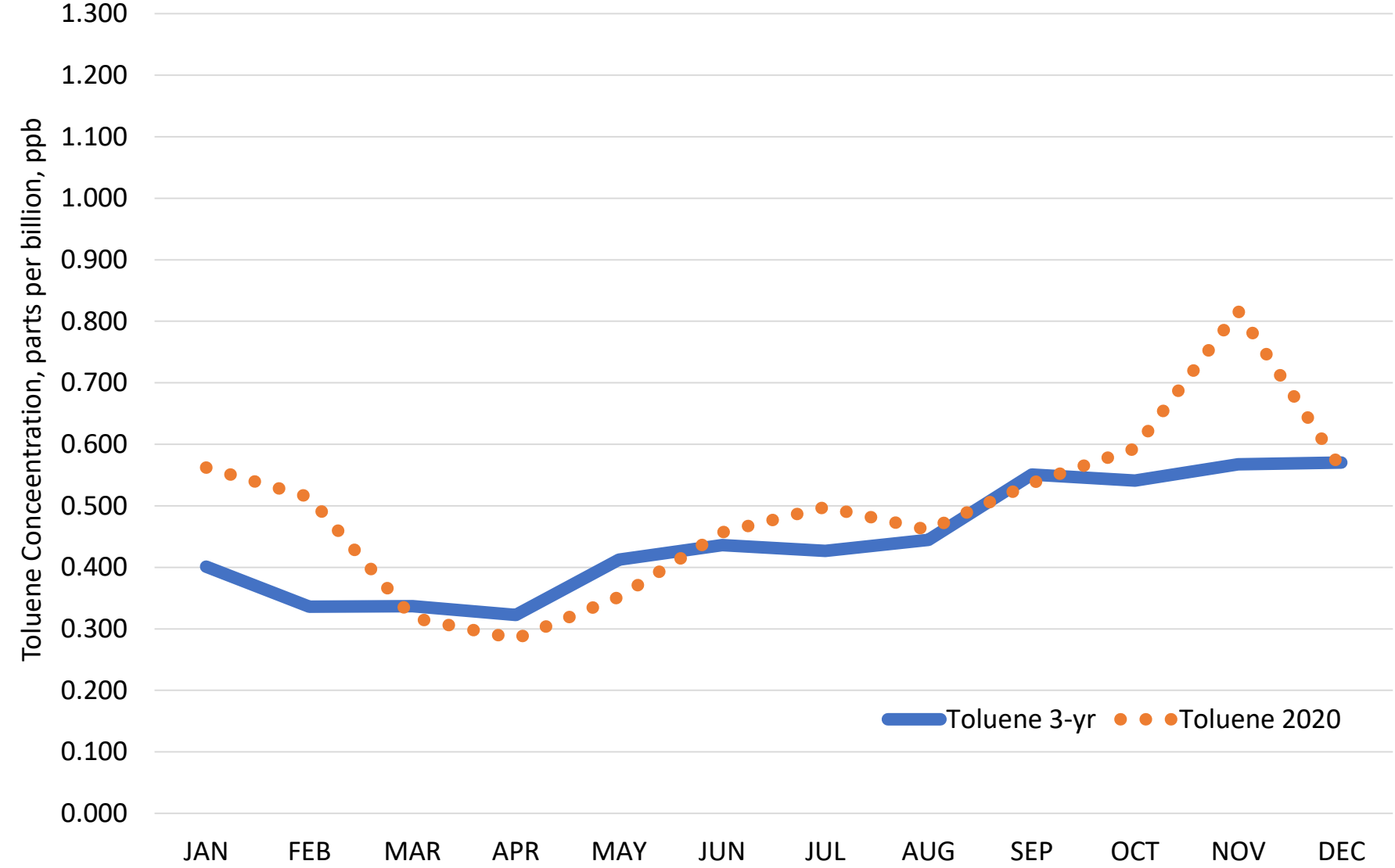
Comparison of 3-Year Average (2017, 2018, 2019) Monthly Toluene Concentrations
with 2020 Monthly Toluene Concentrations at Camden



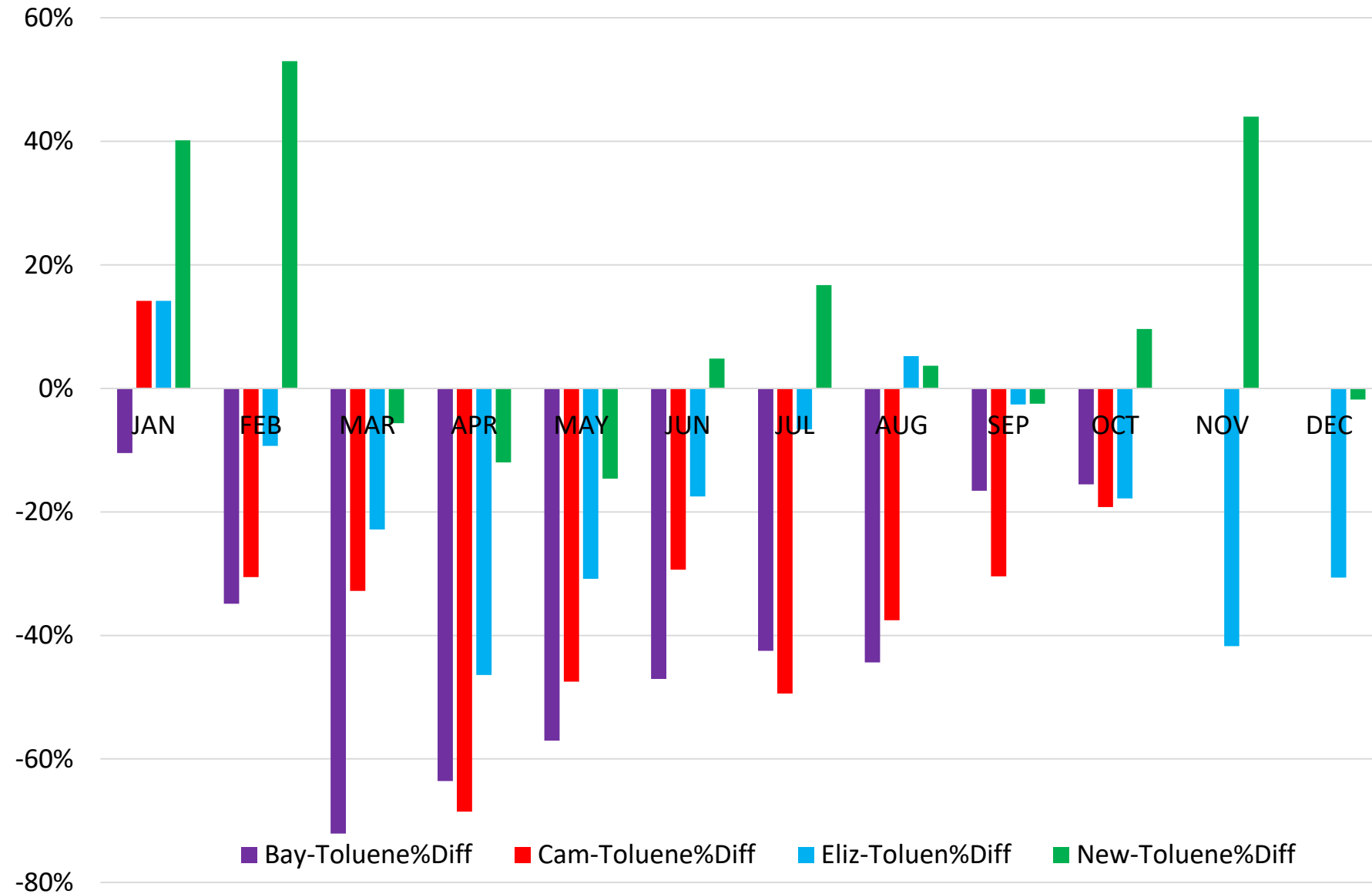
Comparison of 3-Year Average (2016, 2017, 2019) Monthly Toluene Concentrations
with 2020 Monthly Toluene Concentrations at Elizabeth



Comparison of 3-Year Average (2015, 2016, 2019) Monthly Toluene Concentrations with 2020 Monthly Toluene Concentrations at Newark



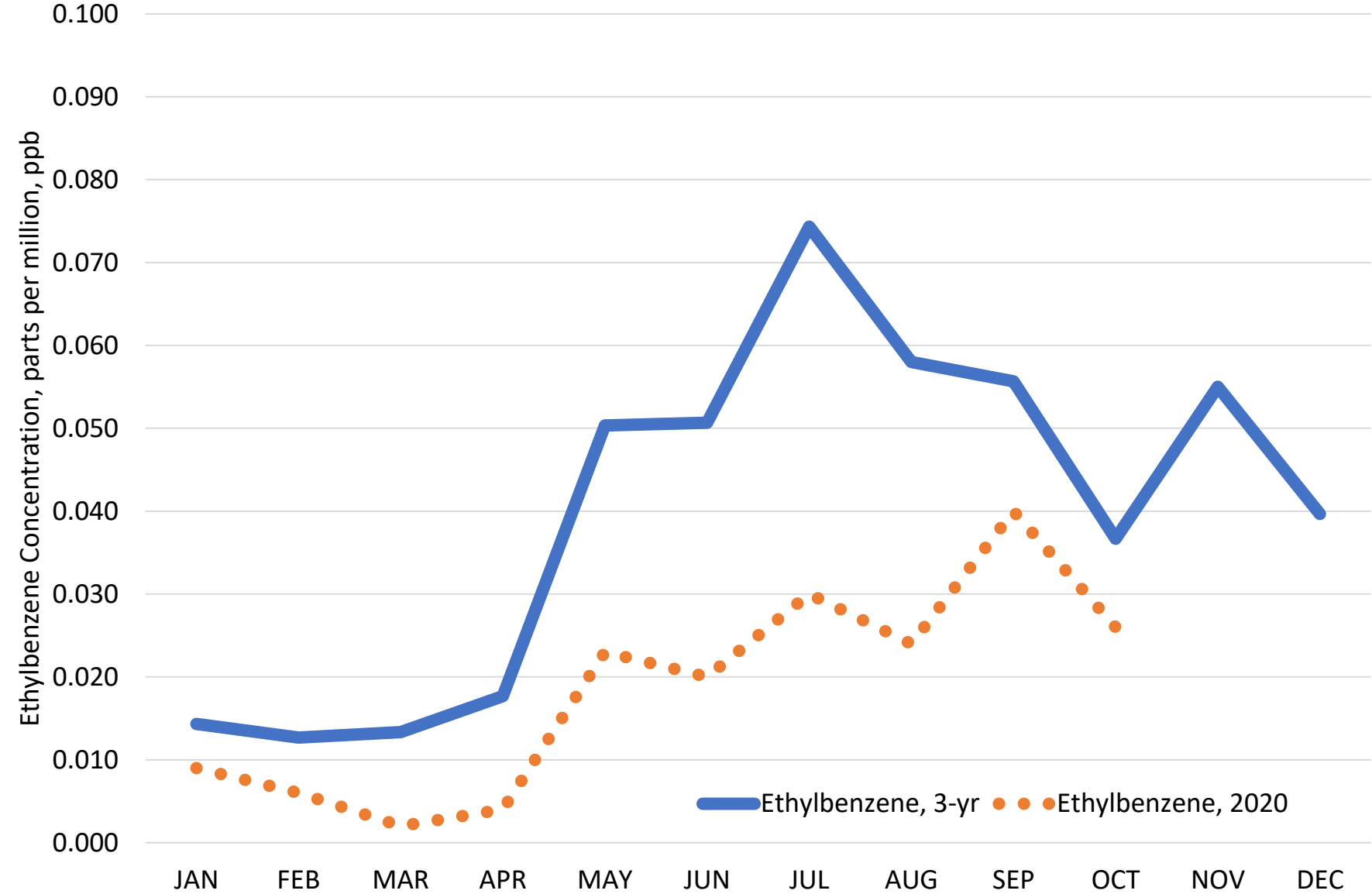
Percent Difference of 3-Year Averaged Monthly Toluene Concentrations Versus
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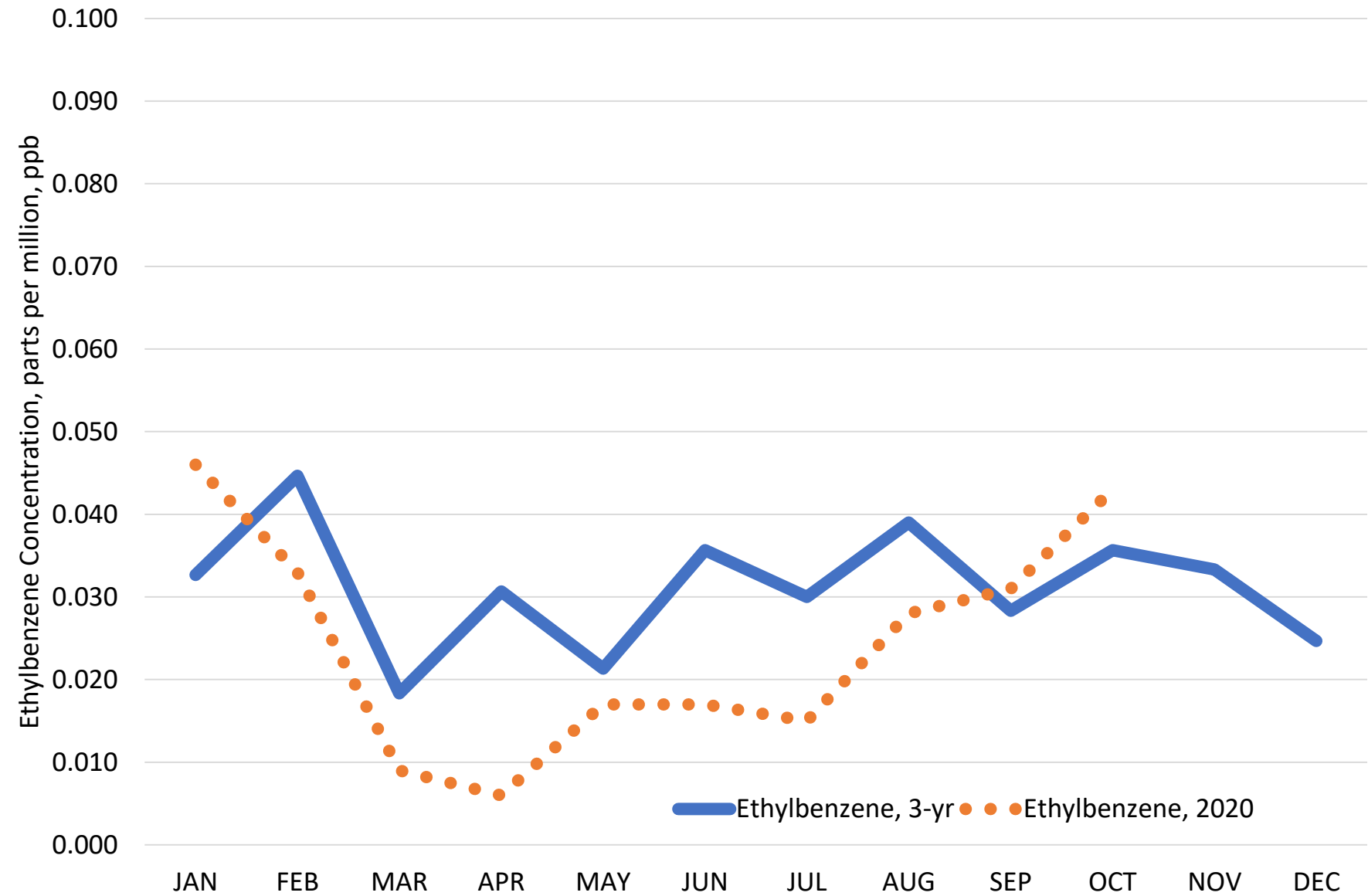
Ethylbenzene

Bayonne, Camden, Elizabeth (Exit 13), Newark Firehouse

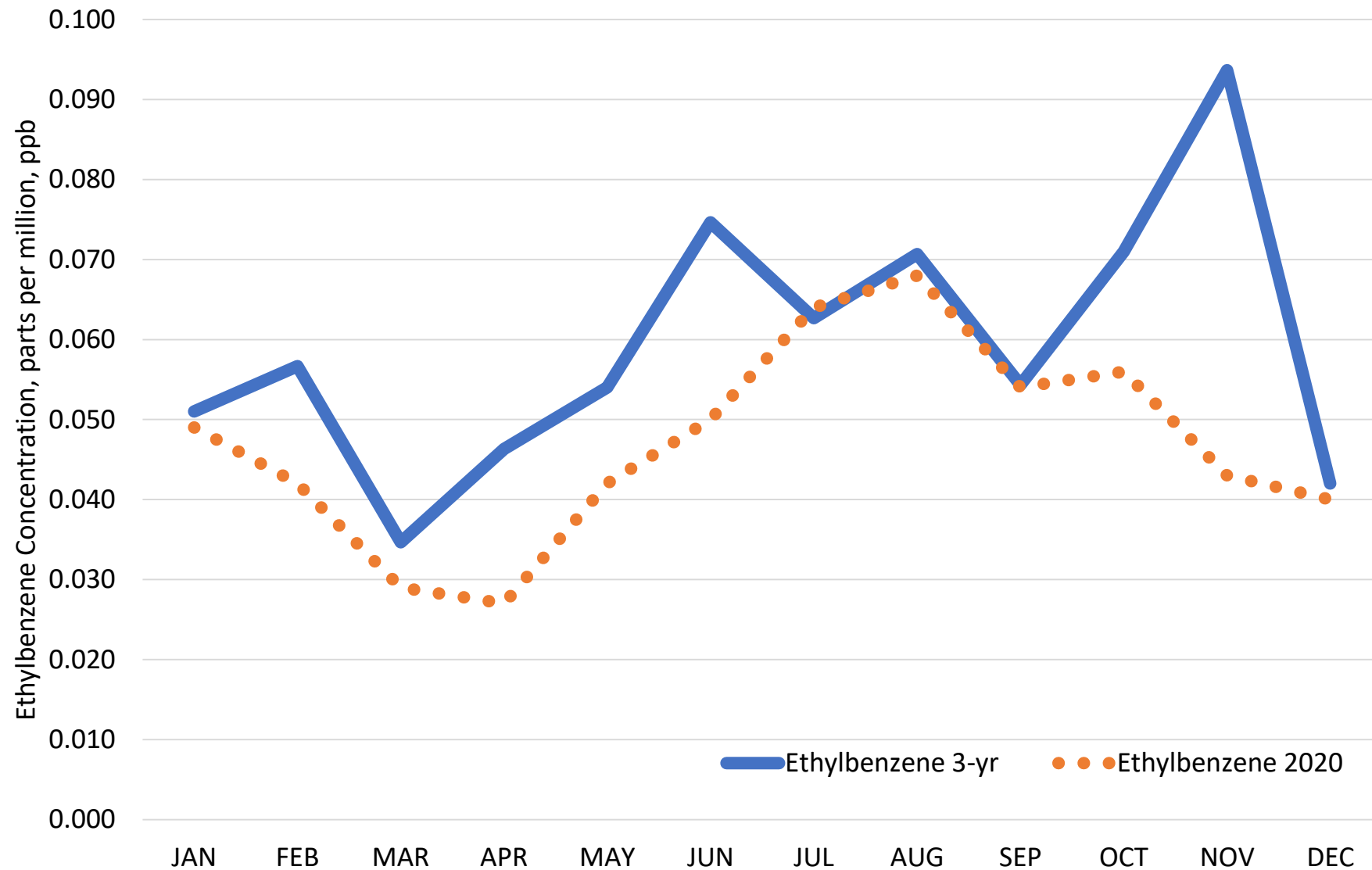
Comparison of 3-Year Average (2015, 2016, 2019) Monthly Ethylbenzene Concentrations with 2020 Monthly Ethylbenzene Concentrations at Bayonne



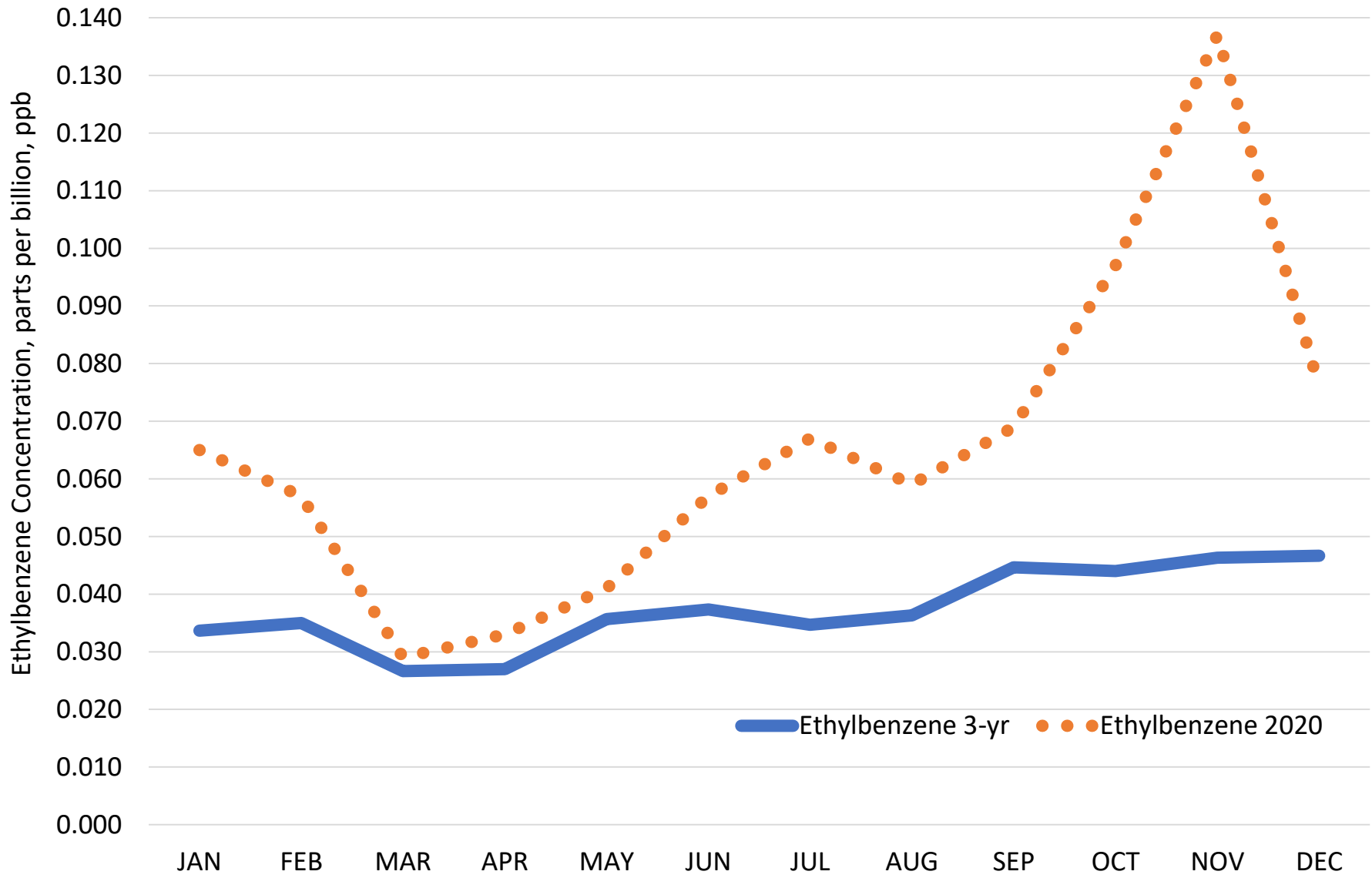
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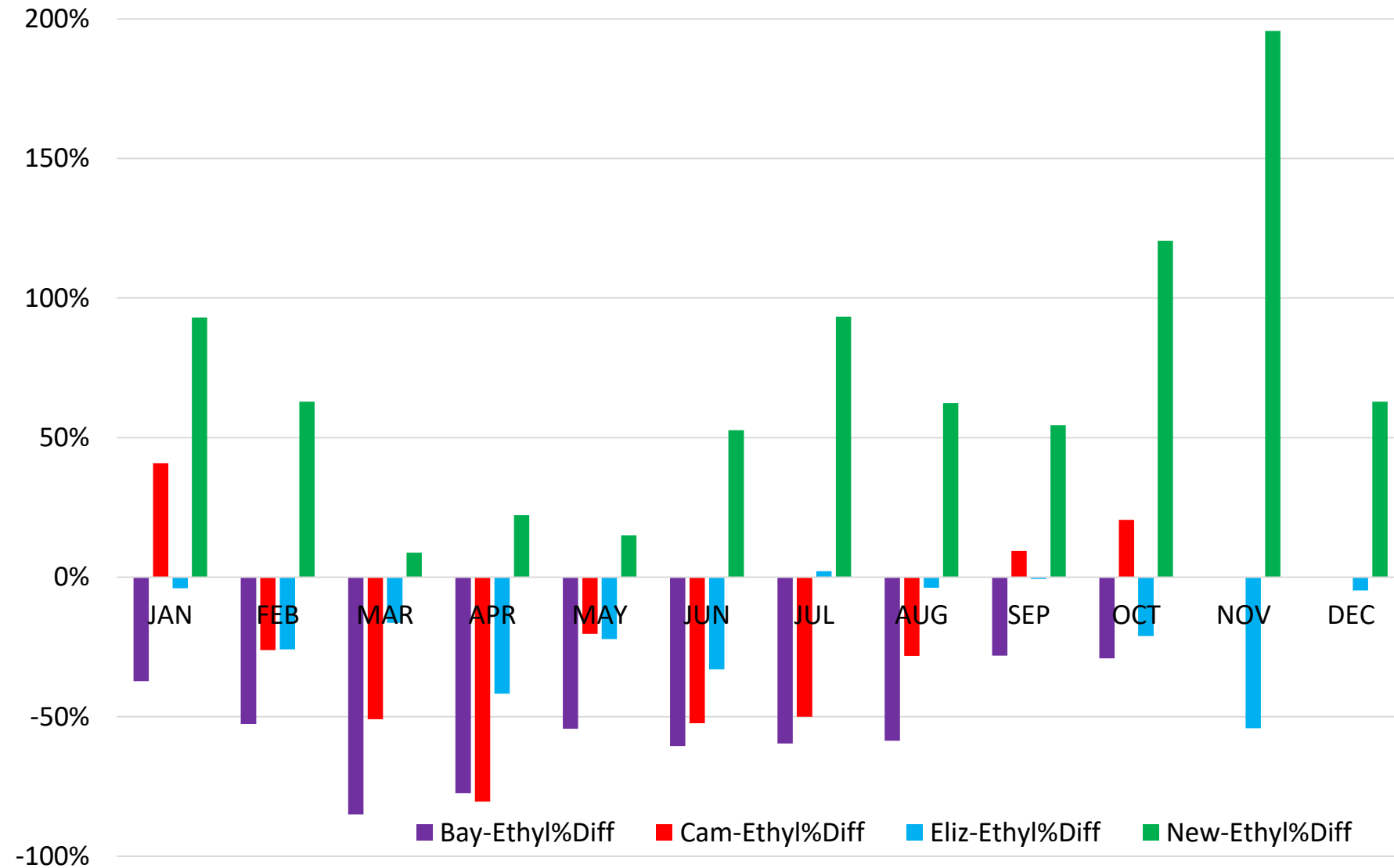
Comparison of 3-Year Average (2016, 2017, 2019) Monthly Ethylbenzene Concentrations with 2020 Monthly Ethylbenzene Concentrations at Elizabeth



Comparison of 3-Year Average (2015, 2016, 2019) Monthly Ethylbenzene Concentrations with 2020 Monthly Ethylbenzene Concentrations at Newark



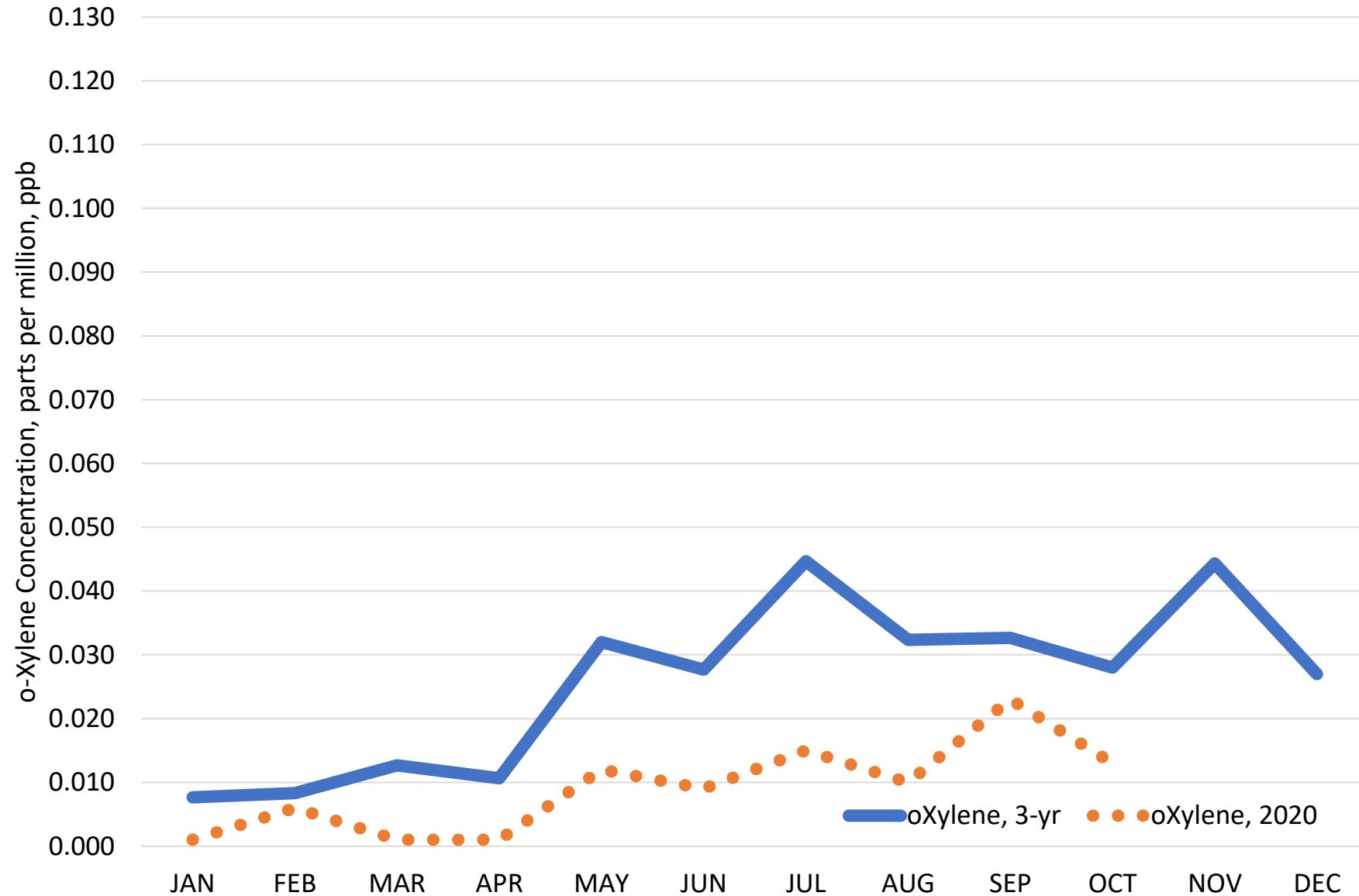
Percent Difference of 3-Year Averaged Monthly Ethylbenzene Concentrations
Versus 2020 Ethylbenzene Concentrations at Bayonne, Camden, Elizabeth (Exit 13)
and Newark



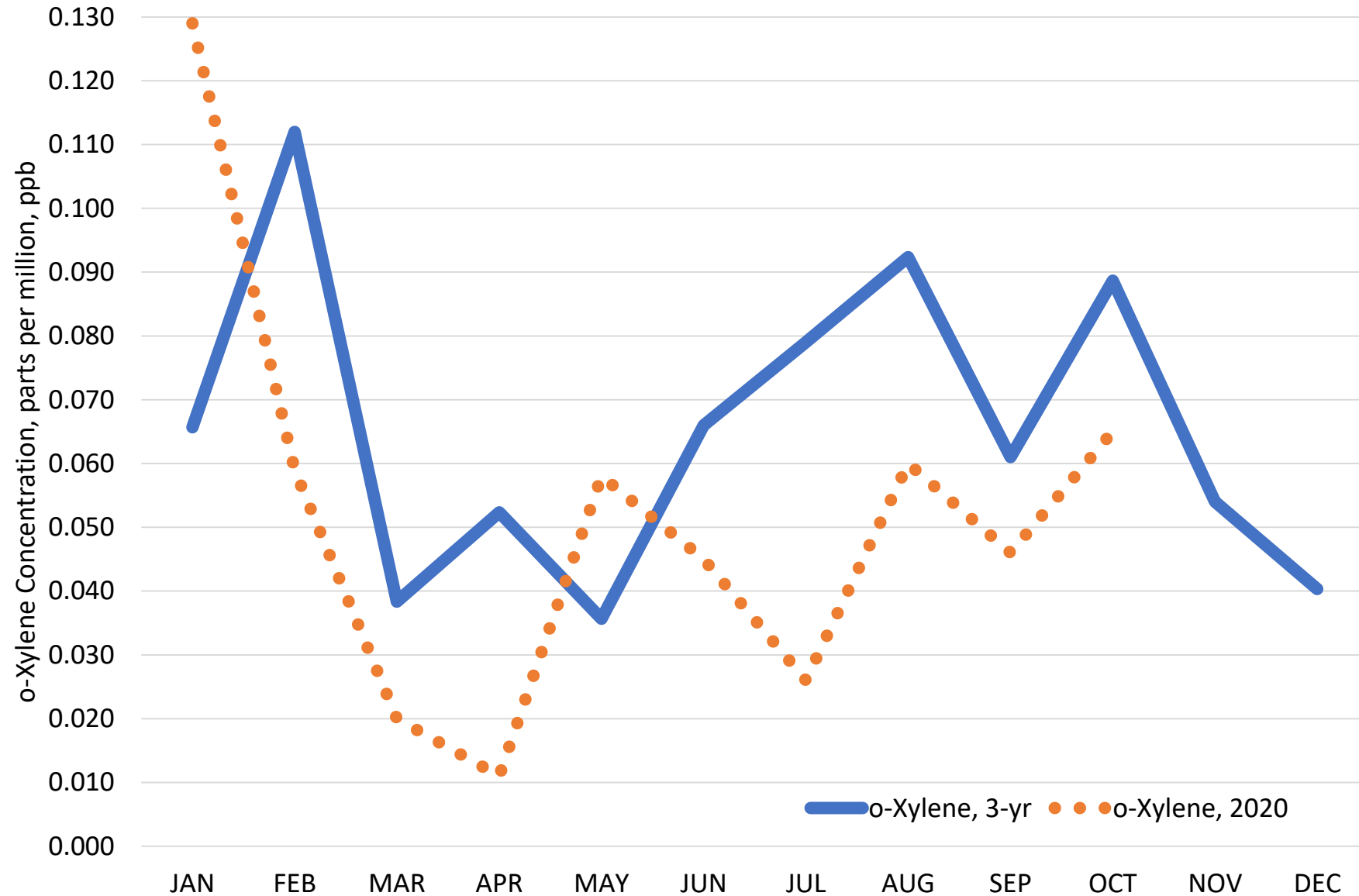
o-Xylene

Bayonne, Camden, Elizabeth (Exit 13), Newark Firehouse

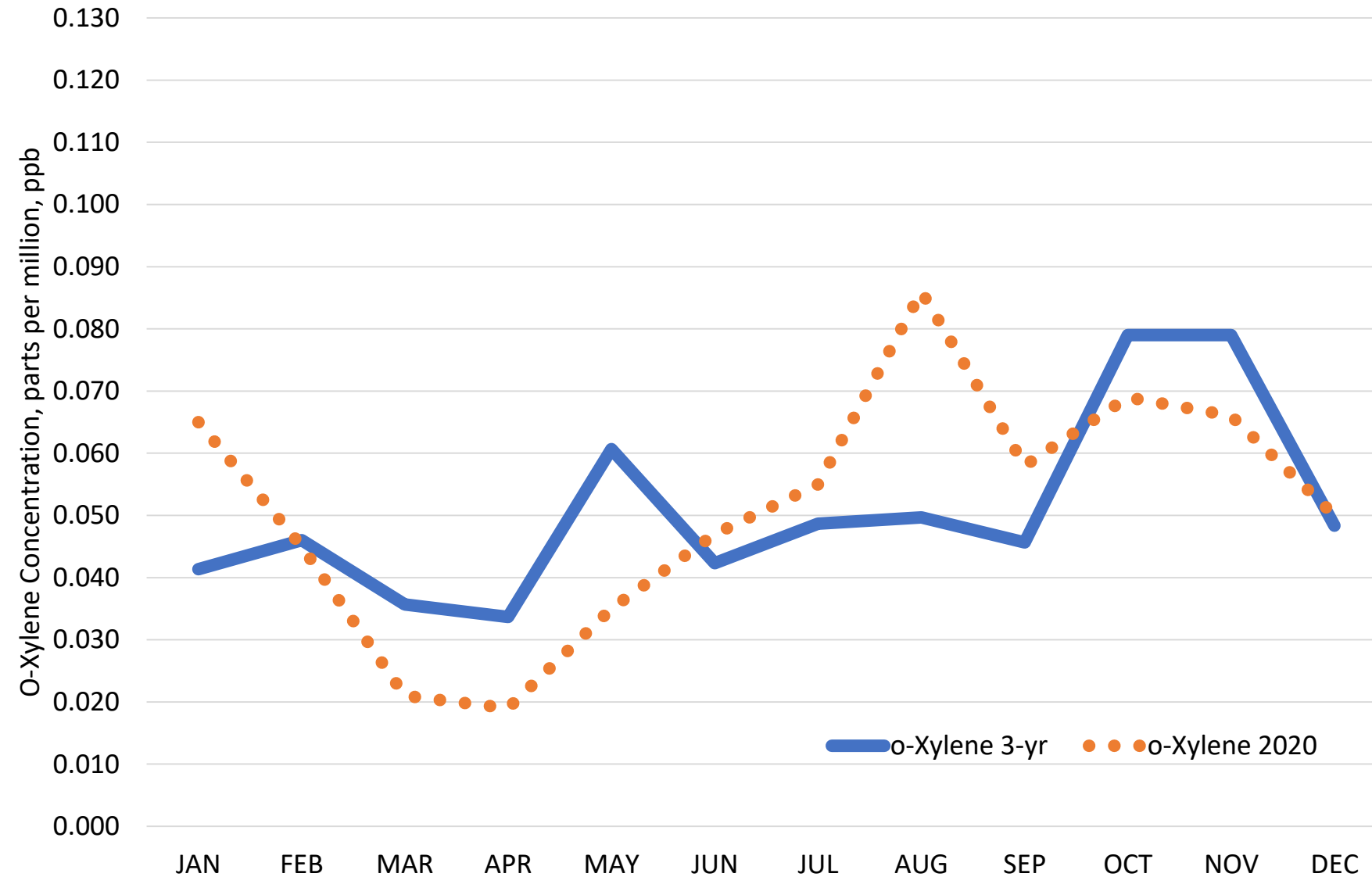
Comparison of 3-Year Average (2015, 2016, 2019) Monthly o-Xylene Concentrations with 2020 Monthly o-Xylene Concentrations at Bayonne



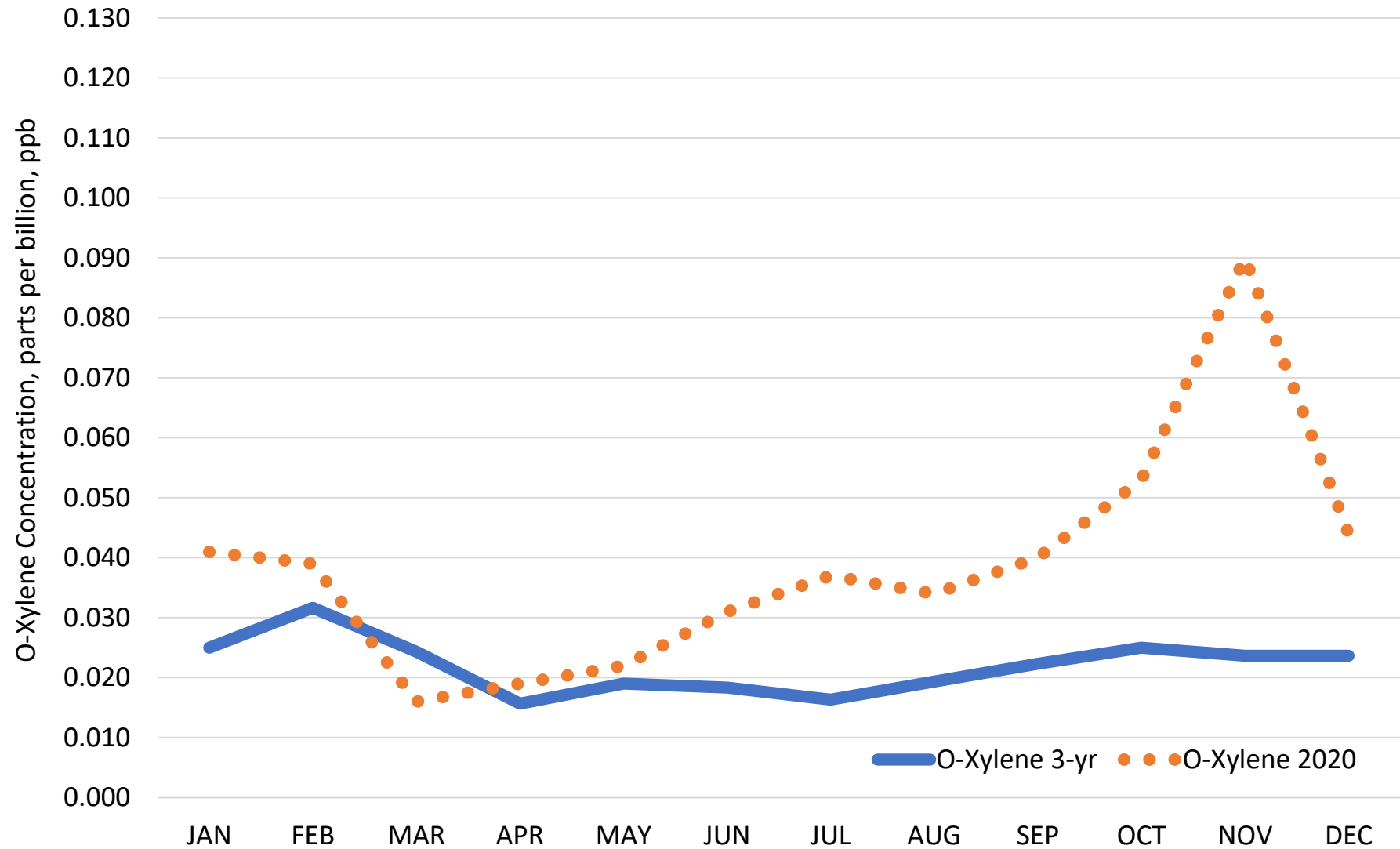
Comparison of 3-Year Average (2017, 2018, 2019) Monthly o-Xylene Concentrations with 2020 Monthly o-Xylene Concentrations at Camden



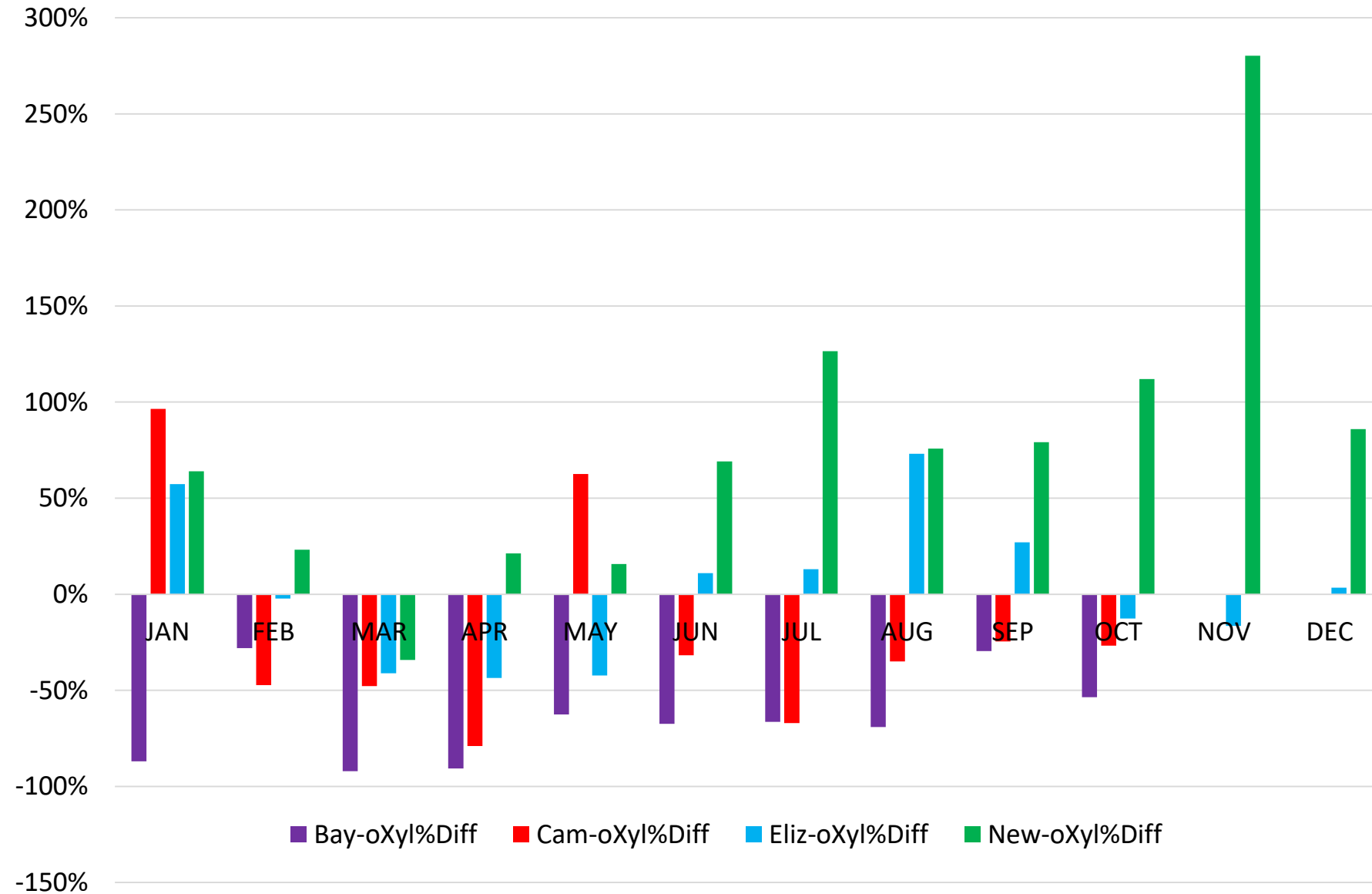
Comparison of 3-Year Average (2016, 2017, 2019) Monthly o-Xylene Concentrations with 2020 Monthly o-Xylene Concentrations at Elizabeth



Comparison of 3-Year Average (2015, 2016, 2019) Monthly O-Xylene Concentration with 2020 Monthly O-Xylene Concentrations at Newark



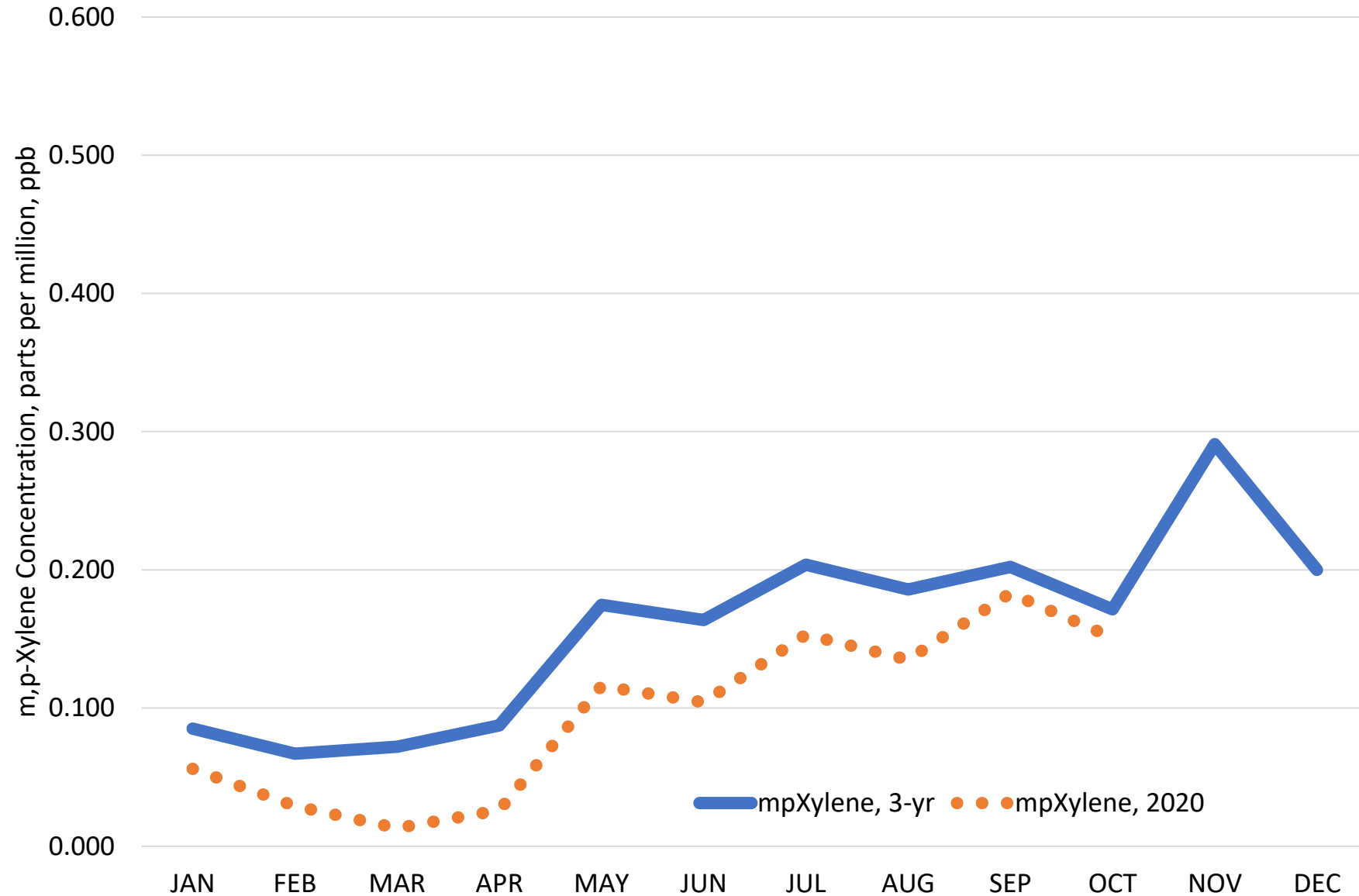
Percent Difference of 3-Year Averaged Monthly o-Xylene Concentrations Versus
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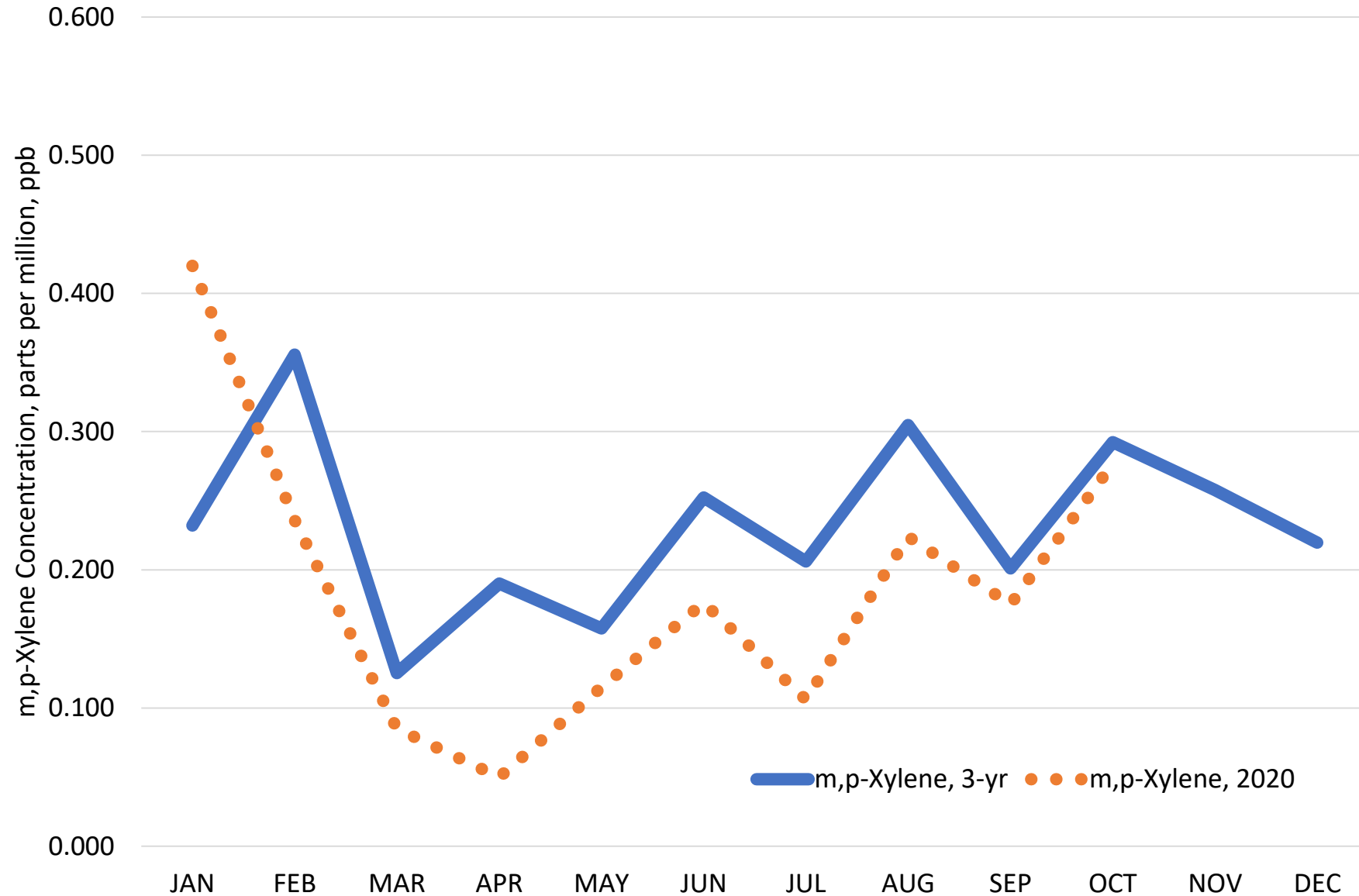
m,p-Xylene

Bayonne, Camden, Elizabeth (Exit 13), Newark Firehouse

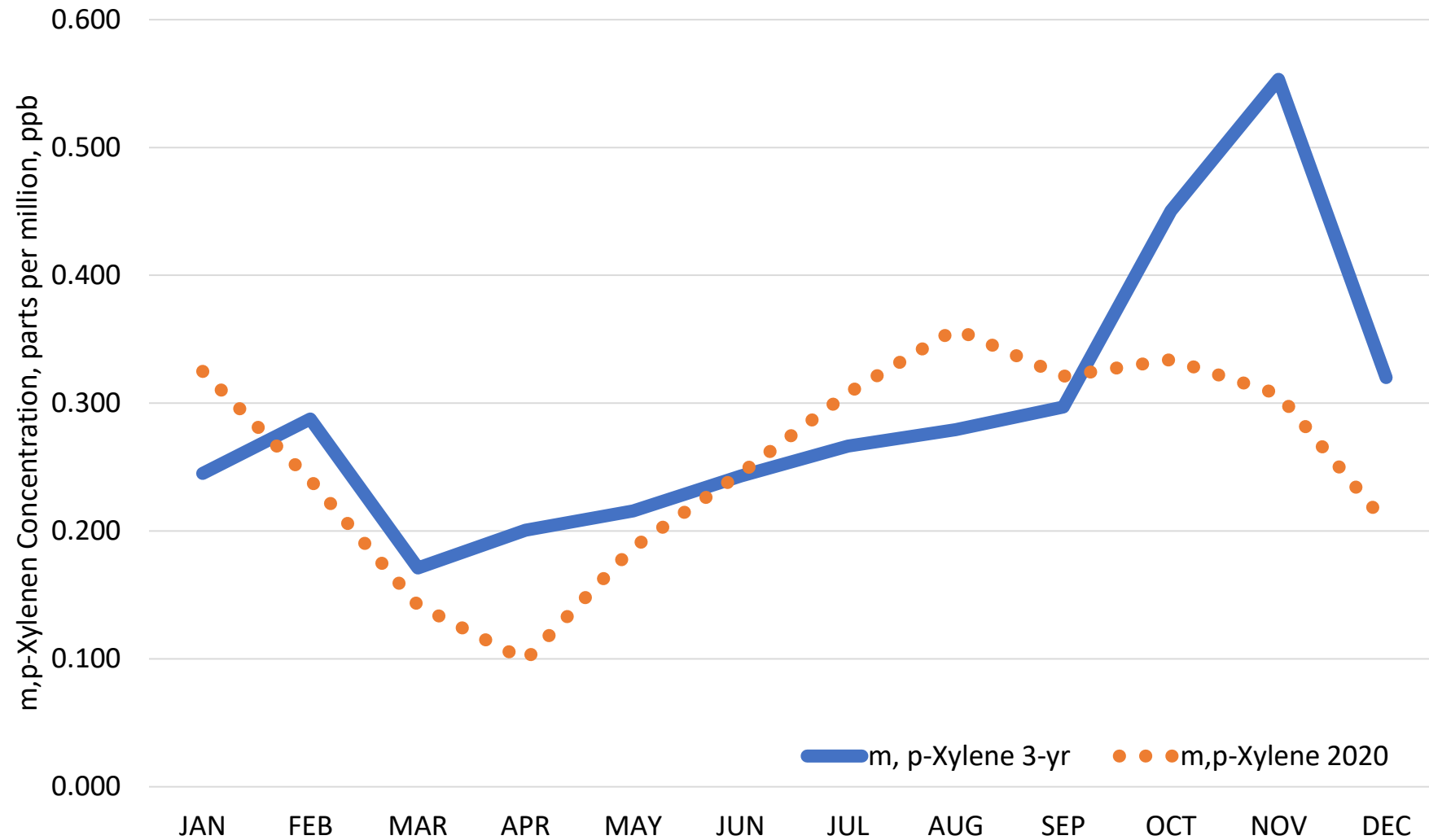
Comparison of 3-Year Average (2015, 2016, 2019) Monthly m,p-Xylene Concentrations with 2020 Monthly m,p-Xylene Concentrations at Bayonne



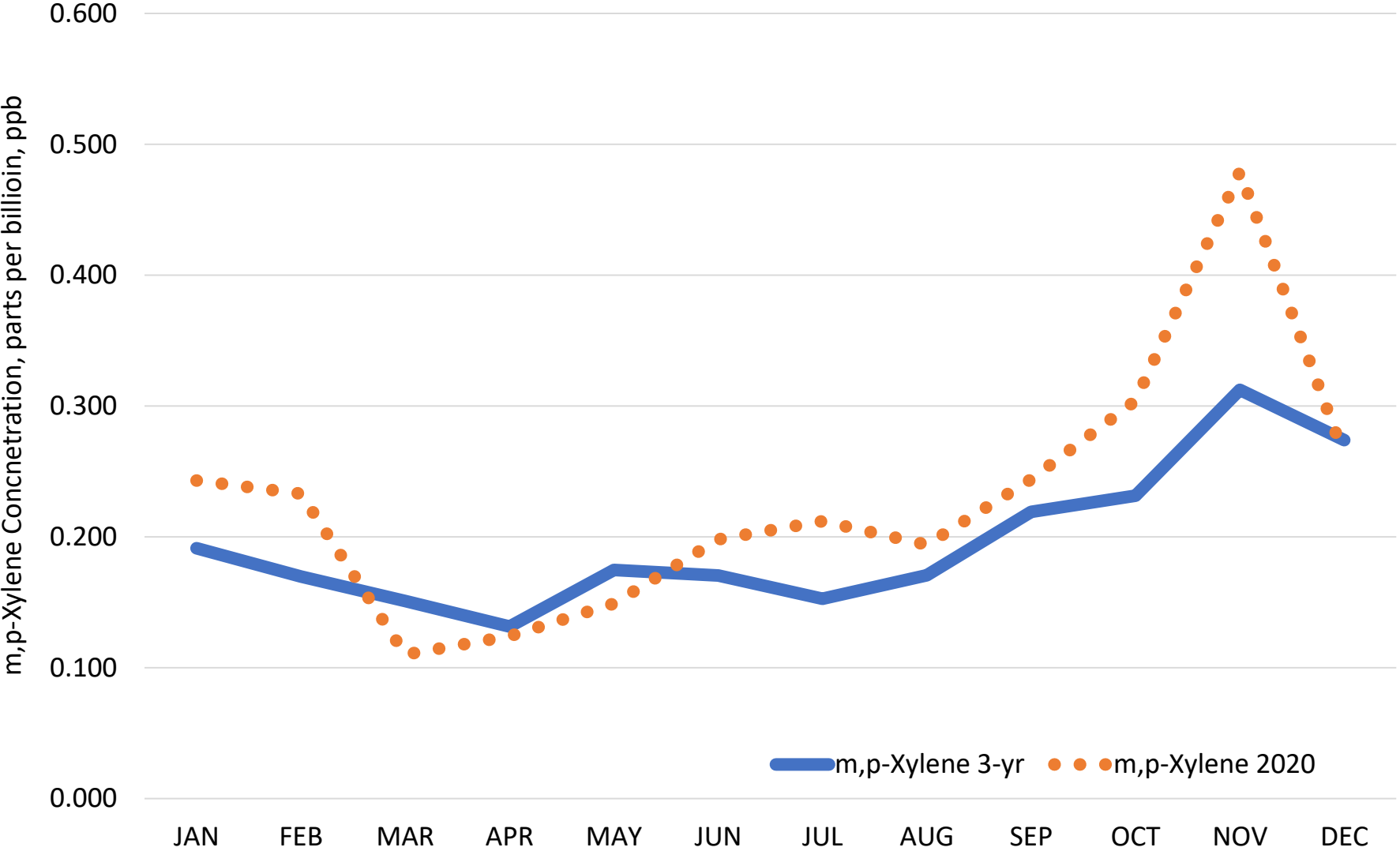
Comparison of 3-Year Average (2017, 2018, 2019) Monthly m,p-Xylene Concentrations with 2020 Monthly m,p-Xylene Concentrations at Camden



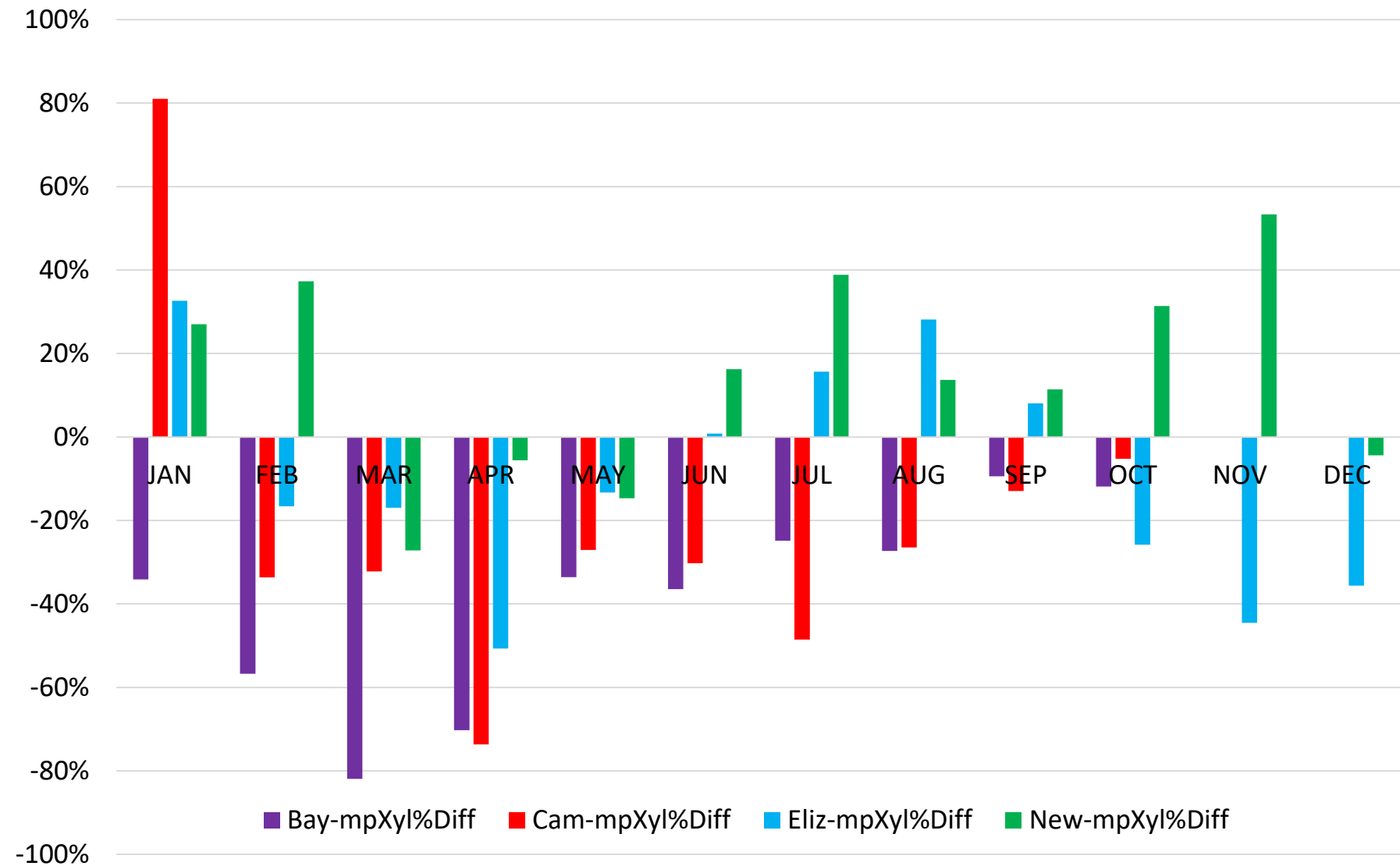
Comparison of 3-Year Average (2016, 2017, 2019) Monthly m,p-Xylene Concentrations with 2020 Monthly m,p-Xylene Concentrations at Elizabeth



Comparison of 3-Year Average (2015, 2016, 2019) Monthly m,p-Xylene Concentrations with 2020 Monthly m,p Xylene Concentrations at Newark



Percent Difference of 3-Year Averaged Monthly m,p-Xylene Concentrations Versus
2020 m,p-Xylene Concentrations at Bayonne, Camden, Elizabeth (Exit 13) and
Newark



End

www.nj.gov/dep/airmon

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