SMALL BUSINESS RATING CHALLENGES DURING COVID

A Full Financial Picture

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Analytics

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COVID-19 Impact On Small Businesses

% Of Businesses that report they showed a Moderate to Large Negative Effect on their business:

April 2020

89.9%

Large – 51.4%

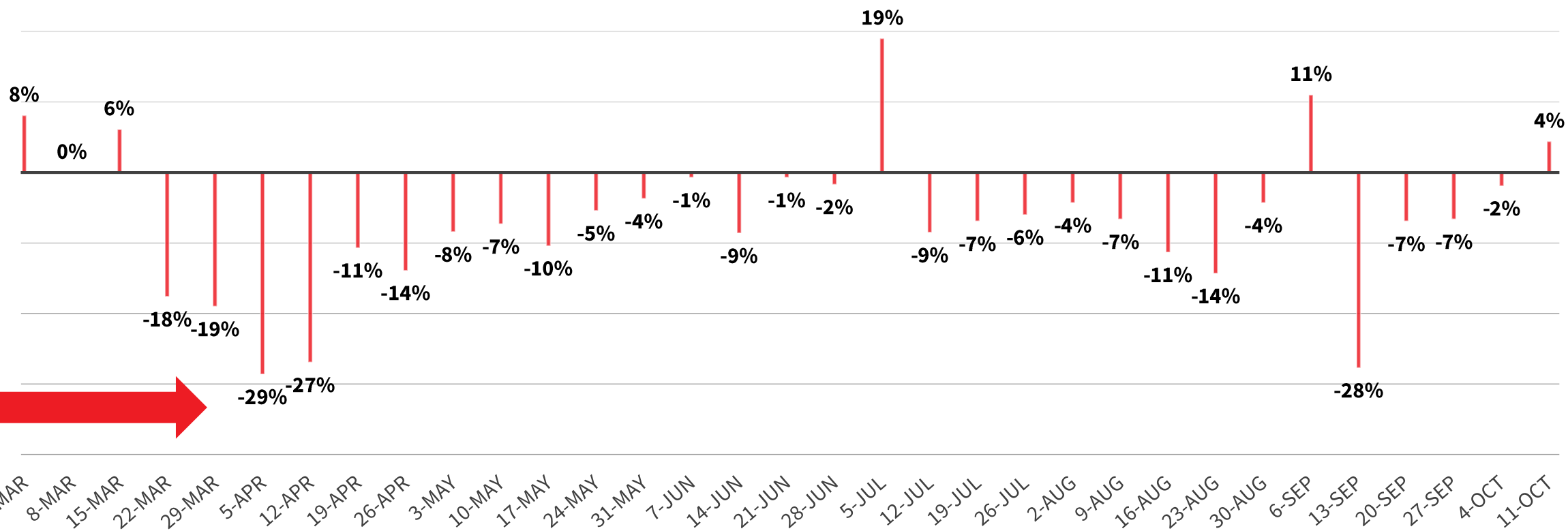Moderate – 38.5%

4/26-5/2

Oct 2020

75.3%

Large – 30.4%

Moderate – 44.9%

9/27-10/3

Source: Census Small Business Pulse Survey

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COVID Impact To Insurance Quoting / New Business Volumes

Percent Difference from 2019

Chart showing percent difference from 2019 by week:

- 1-MAR: 8%
- 8-MAR: 0%
- 15-MAR: 6%
- 22-MAR: -18%
- 29-MAR: -19%
- 5-APR: -29%
- 12-APR: -27%
- 19-APR: -11%
- 26-APR: -14%
- 3-MAY: -8%
- 10-MAY: -7%
- 17-MAY: -10%
- 24-MAY: -5%
- 31-MAY: -4%
- 7-JUN: -1%
- 14-JUN: -9%
- 21-JUN: -1%
- 28-JUN: -2%
- 5-JUL: 19%
- 12-JUL: -9%
- 19-JUL: -7%
- 26-JUL: -6%
- 2-AUG: -4%
- 9-AUG: -7%
- 16-AUG: -11%
- 23-AUG: -14%
- 30-AUG: -4%
- 6-SEP: 11%
- 13-SEP: -28%
- 20-SEP: -7%
- 27-SEP: -7%
- 4-OCT: -2%
- 11-OCT: 4%

* July 5, Sept 6 & 13: Holiday spikes

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COVID Effects Vary Dramatically By Industry

Data Collected 9/27 to 10/3

■ % Responded with largest negative effect   ■ % Responded with little to no Effect

Bar chart values by industry:

Industry	% Largest negative effect	% Little to no Effect
MINING & OIL	44%	17%
UTILITIES	5%	51%
CONSTRUCTION	17%	28%
MANUFACTURING	32%	16%
WHOLESALE	31%	15%
RETAIL	25%	15%
TRANSPORTATION	34%	19%
INFORMATION	31%	19%
FINANCE & INS	13%	32%
REAL ESTATE/RENTAL	24%	23%
PROF SVC	22%	24%
MANAGEMENT	22%	38%
ADMINISTRATIVE	22%	24%
EDUCATIONAL	58%	8%
HEALTH & SOCIAL ASST	35%	8%
ARTS & ENTERTAIN	60%	6%
ACCOM & FOOD SVC	63%	5%
OTHER SVC	41%	13%

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Industry Differences Also Affect Insurance Shopping

Percent Difference from 2019

Legend: — Eating And Drinking Places — Miscellaneous Special Trade Contractors
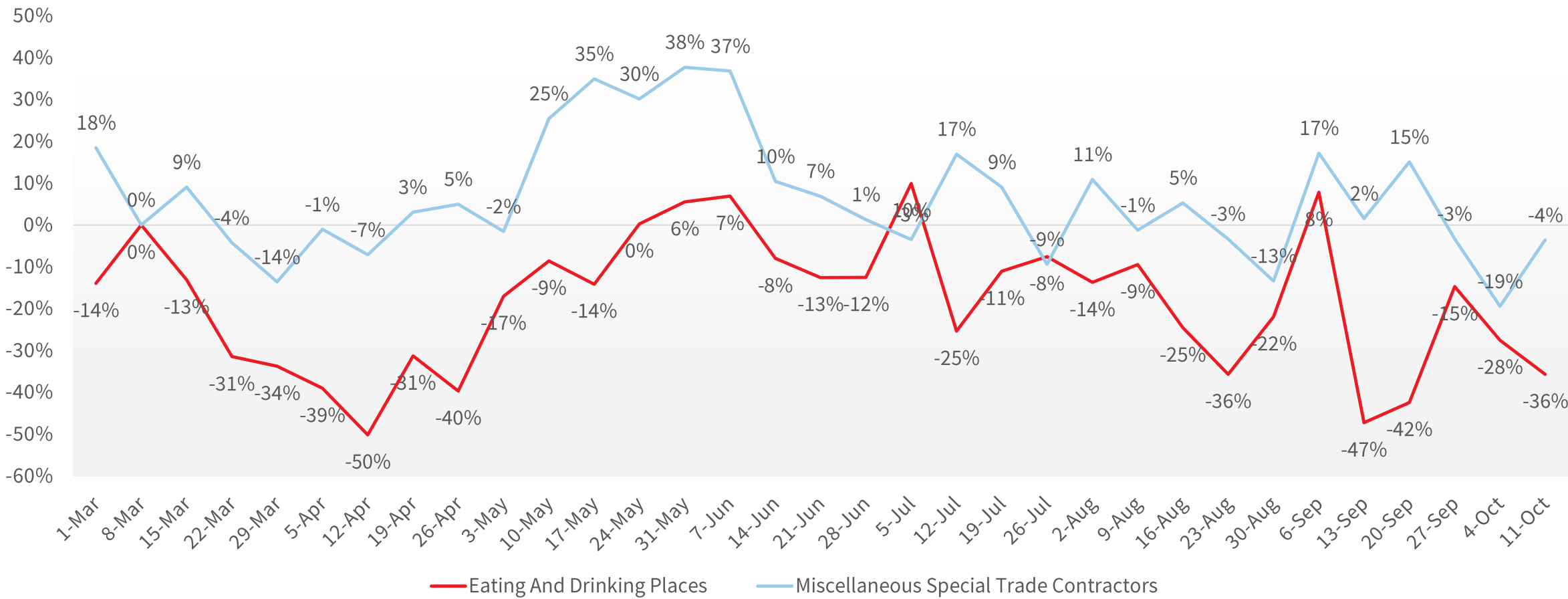
Source: LexisNexis COVID Commercial Trends

Financial Stress On Those Industries Most Affected

Accommodation & Food Svc

- 83% Received PPP Loans*

- 38% Received Economic Injury Disaster Loans (EIDL)*

Yet restaurants continue to struggle – with over 32k marked as closed since March 1 on Yelp

Restaurants marked closed on Yelp that were open on March 1** (as of Sept)

Restaurants

32,109 Total Closures

61% Permanent Closures

39% Temporary Closures

Sources: *Census Small Business Pulse Survey: 9/27-10/3
** Yelp Local Economic Impact Report; data as of 8/31/20

Pre COVID - The Financial Gap

ADULT CONSUMERS have credit history

90%

SMALL BUSINESSES have business credit history

<50%

INFORMATION GAP

Sources: 1.CFPB, Data Point: Credit Invisibles 2015;
2. LexisNexis Risk Solutions Internal Study, 2019 (Using 1 credit bureau)
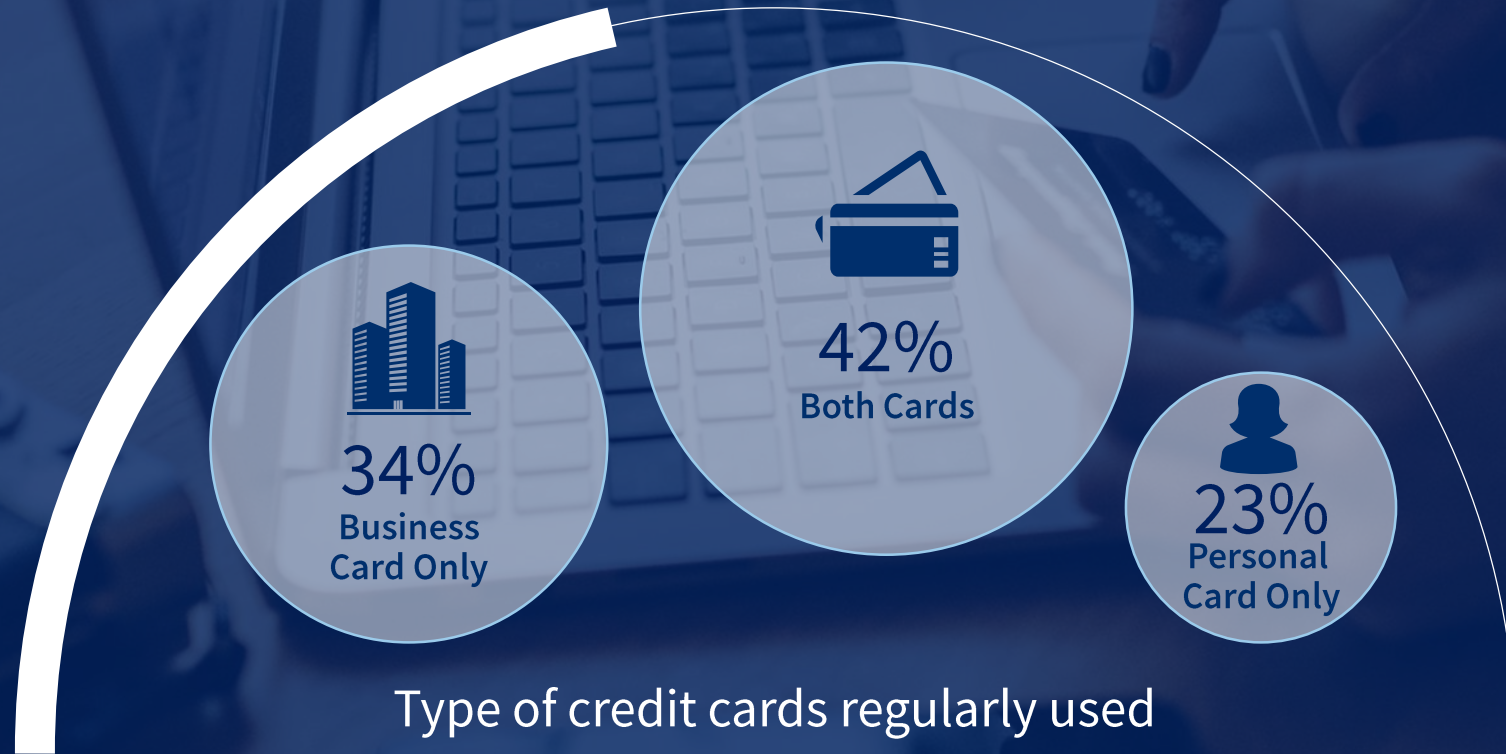
HEAVENLY CUPCAKES

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YEAR 1
FINANCIAL DATA:

300 — 850

Personal Credit

HEAVENLY CUPCAKES

YEAR ONE

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45% of non employer firms use credit cards to manage their business

34%
Business Card Only

42%
Both Cards

23%
Personal Card Only

Type of credit cards regularly used

HEAVENLY CUPCAKES

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YEAR 1
FINANCIAL DATA:

Personal Credit

YEAR 2
FINANCIAL DATA:

Personal Credit

Business Credit Card

YEAR 3
FINANCIAL DATA:

Personal Credit

Business Credit Card

Small Business Loan

HEAVENLY CUPCAKES

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Financial Performance On Both
Effectively Predicts **Commercial Insurance** Risk

HIGHER LOSS PROPENSITY IF THE INPUT …

BUSINESS HAS …

one or more of tax lien,
judgment or bankruptcy

one or more credit inquiry

20% of their total account balances
are more than 60 days past due

BUSINESS OWNER HAS …

one or more derogatory public
records

unreleased personal claims
(liens/judgments)

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CARES Act Impact

U.S. Small Business Administration

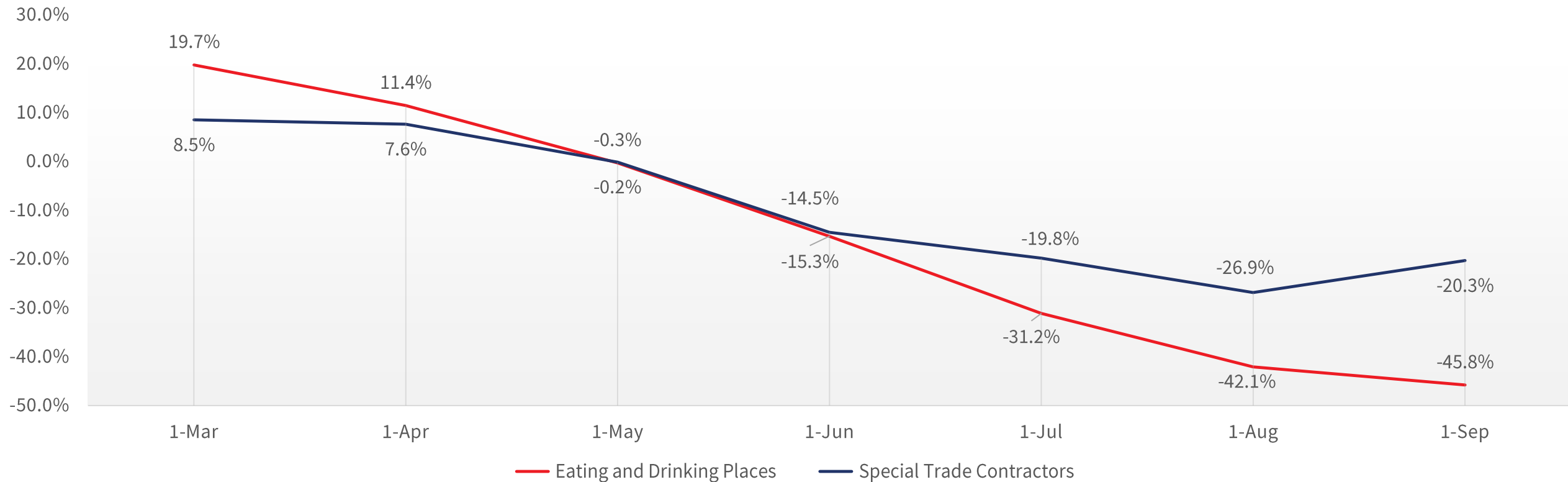Assistance for American Workers and Families

Assistance for Small Businesses

Preserving Jobs for American Industry
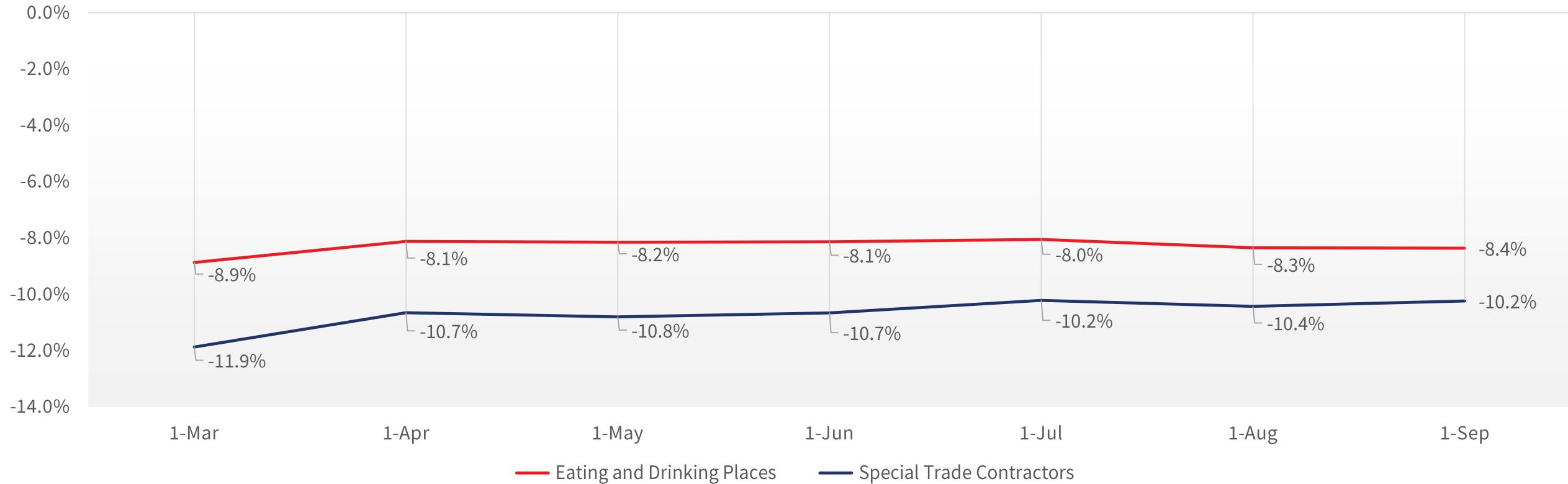
Underlying Attributes Trend During COVID-19

Total number of inquiries in the last 3 months
Percent Difference from 2019

	1-Mar	1-Apr	1-May	1-Jun	1-Jul	1-Aug	1-Sep
Eating and Drinking Places	19.7%	11.4%	-0.2%	-15.3%	-31.2%	-42.1%	-45.8%
Special Trade Contractors	8.5%	7.6%	-0.3%	-14.5%	-19.8%	-26.9%	-20.3%

— Eating and Drinking Places   — Special Trade Contractors

Source: Experian Business Information Services
Note: Some data may lag 60-90 days due to data reporting and collection
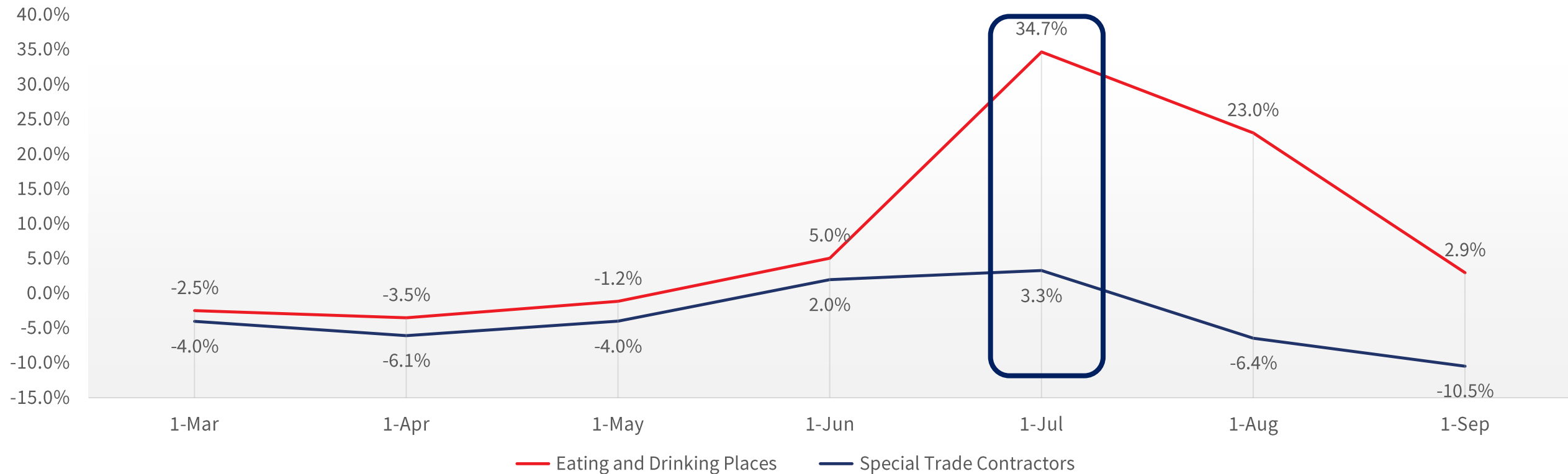
Underlying Attributes Trend During COVID-19

Total number of bankruptcies, tax liens, & judgments
Percent Difference from 2019

Eating and Drinking Places: -8.9%, -8.1%, -8.2%, -8.1%, -8.0%, -8.3%, -8.4%

Special Trade Contractors: -11.9%, -10.7%, -10.8%, -10.7%, -10.2%, -10.4%, -10.2%

X-axis: 1-Mar, 1-Apr, 1-May, 1-Jun, 1-Jul, 1-Aug, 1-Sep

— Eating and Drinking Places   — Special Trade Contractors

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Underlying Attributes Trend During COVID-19

**Percentage of total account balances
are more than 60 days past due
Percent Difference from 2019**

Chart data:

Eating and Drinking Places (red):
- 1-Mar: -2.5%
- 1-Apr: -3.5%
- 1-May: -1.2%
- 1-Jun: 5.0%
- 1-Jul: 34.7%
- 1-Aug: 23.0%
- 1-Sep: 2.9%

Special Trade Contractors (dark blue):
- 1-Mar: -4.0%
- 1-Apr: -6.1%
- 1-May: -4.0%
- 1-Jun: 2.0%
- 1-Jul: 3.3%
- 1-Aug: -6.4%
- 1-Sep: -10.5%

Legend: —— Eating and Drinking Places   —— Special Trade Contractors

COMMERCIAL CREDIT
(leverages 3 sources for maximum coverage)

BUSINESS OWNER FINANCIAL INFORMATION
(uses Public Records)

EVALUATED ON:
BOP and Package RISKS

STUDY OF 4 Million POLICY RECORDS
Business & Business Owner Names Available

Coverage And Hit Rates

COMMERCIAL CREDIT
(leverages 3 sources for maximum coverage)

75%

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CONFIDENTIAL

Coverage And Hit Rates

BUSINESS OWNER FINANCIAL INFORMATION
(uses Public Records)

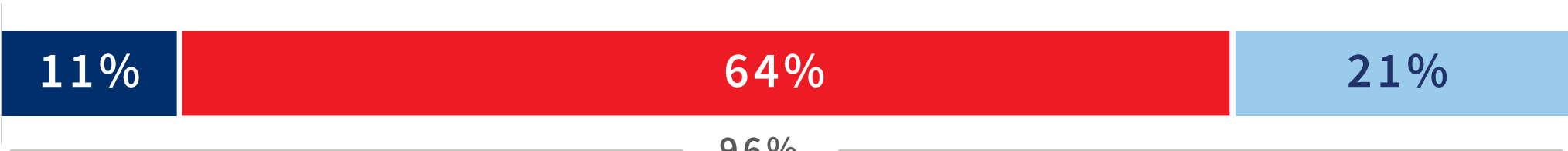**85%**

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Coverage And Hit Rates

COMMERCIAL CREDIT
(leverages 3 sources for maximum coverage)

+

BUSINESS OWNER FINANCIAL INFORMATION
(uses Public Records)

11%	64%	21%

96%

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Performance Of Both Models

COMMERCIAL CREDIT
(leverages 3 sources for maximum coverage)

+

BUSINESS OWNER FINANCIAL INFORMATION
(uses Public Records)

64%

Source: LexisNexis Risk Solutions Internal Study, 2019

Commercial Credit Models — *3 Sources*

		64%		

COMMERCIAL CREDIT ATTRACT SCORE

	200 - 666	667 - 732	733 - 786	787 - 850	851 - 997
Loss Ratio Relativity ▶	1.37	1.09	0.97	0.88	0.70
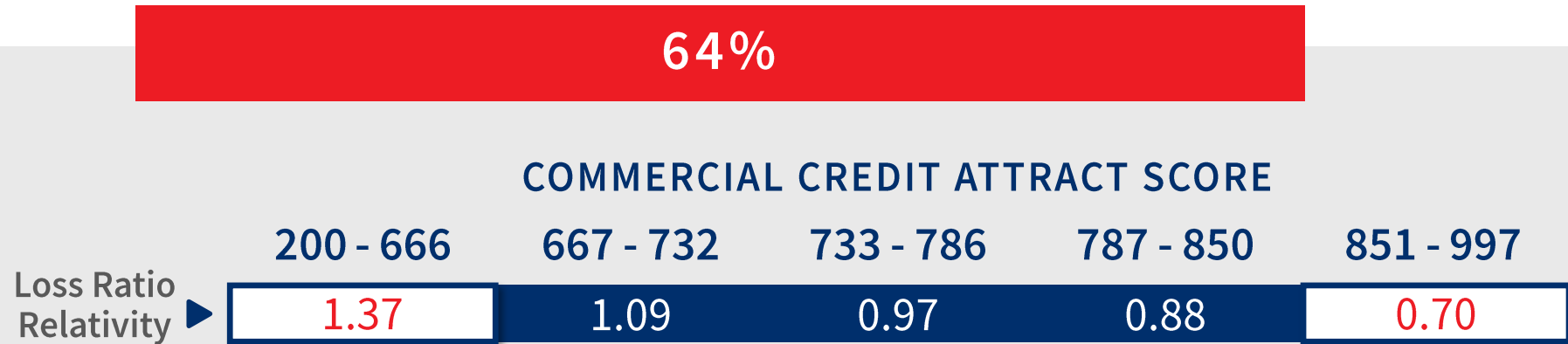
*Losses are non-weather, non-catastrophe, capped at 300k on a per claim basis.

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Business Owner Public Records Model

64%

	COMMERCIAL CREDIT ATTRACT SCORE				
	200 - 666	667 - 732	733 - 786	787 - 850	851 - 997
	1.37	1.09	0.97	0.88	0.70

BUSINESS OWNER ATTRACT SCORE

Loss Ratio Relativity ▼

Business Owner Attract Score	Loss Ratio Relativity
200 - 541	1.28
542 - 611	1.06
612 - 669	0.97
670 - 731	0.89
732 - 997	0.79

LexisNexis® RISK SOLUTIONS
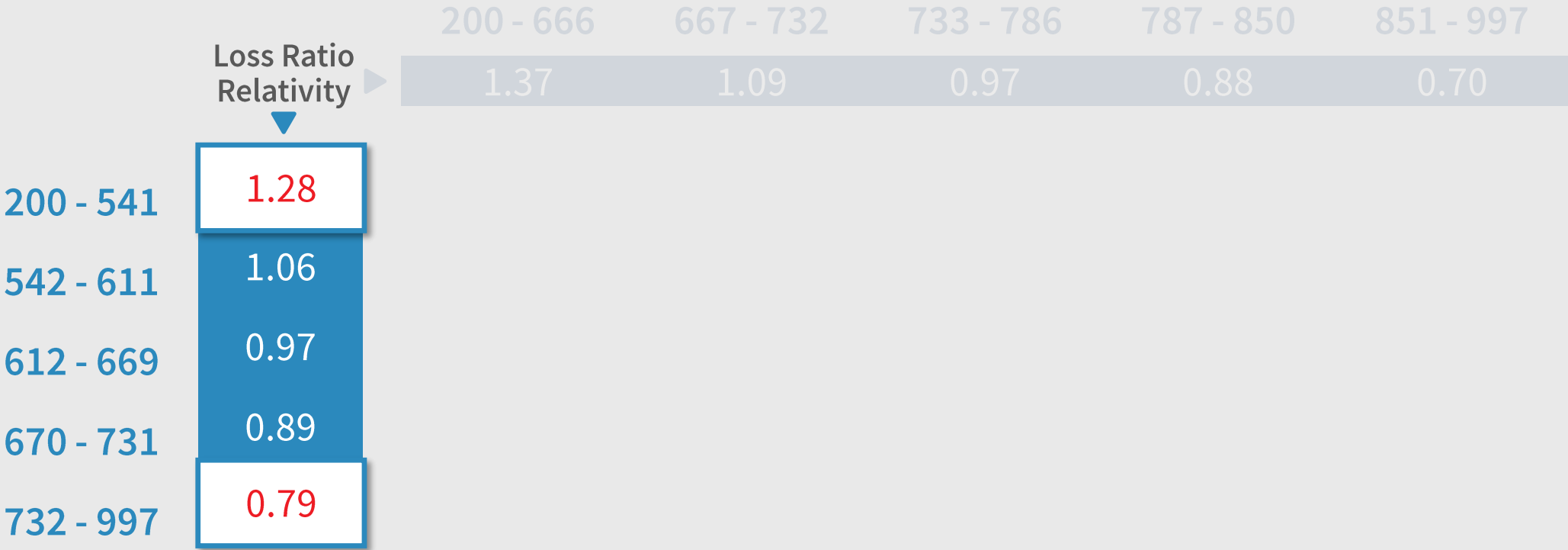
Additional Segmentation Using Both

64%

BUSINESS OWNER ATTRACT SCORE	Loss Ratio Relativity ▼	COMMERCIAL CREDIT ATTRACT SCORE				
		200 - 666	667 - 732	733 - 786	787 - 850	851 - 997
	▶	1.37	1.09	0.97	0.88	0.70
200 - 541	1.28	1.65	1.28	*Adverse selection*		1.01
542 - 611	1.06	1.42	1.10	1.00	0.96	0.73
612 - 669	0.97	1.20	1.13	0.98	0.85	0.69
670 - 731	0.89	1.19	0.96	0.89	0.88	0.65
732 - 997	0.79	1.13	0.91	*Retain preferred risk*		0.58

Additional Segmentation Using Both

64%

COMMERCIAL CREDIT ATTRACT SCORE

BUSINESS OWNER ATTRACT SCORE	Loss Ratio Relativity ▶	200 - 666	667 - 732	733 - 786	787 - 850	851 - 997
	▼	1.37	1.09	0.97	0.88	0.70
200 - 541	1.28	1.65	1.28	1.12	1.05	1.01
542 - 611	1.06	1.42				0.73
612 - 669	0.97	1.20				0.69
670 - 731	0.89	1.19				0.65
732 - 997	0.79	1.13	0.91	0.86	0.74	0.58

43% Improvement in Top-to-Bottom Ratio
— COMBINED SCORE OVER COMMERCIAL CREDIT ALONE

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Is your organization currently using predictive modeling for underwriting or rating?

A. Yes, we're using predictive modeling today

B. No, we're not using predictive modeling today

Use Both Models As Score Input

Use optimal binning to turn scores into factors

Score Range	Factor
200 - 541	1.28
542 - 611	1.06
612 - 669	0.97
670 - 731	0.89
732 - 997	0.79

Score Range	Factor
200 - 404	1.48
405 - 448	1.29
449 - 486	1.27
487 - 501	1.25
502 - 541	1.22
542 - 578	1.09
579 - 621	1.07
622 - 640	0.98
641 - 648	0.95
649 - 703	0.92
704 - 763	0.84
764 - 997	0.76

Source: LexisNexis Risk Solutions Internal Study, 2019

Use Both Models As Score Input
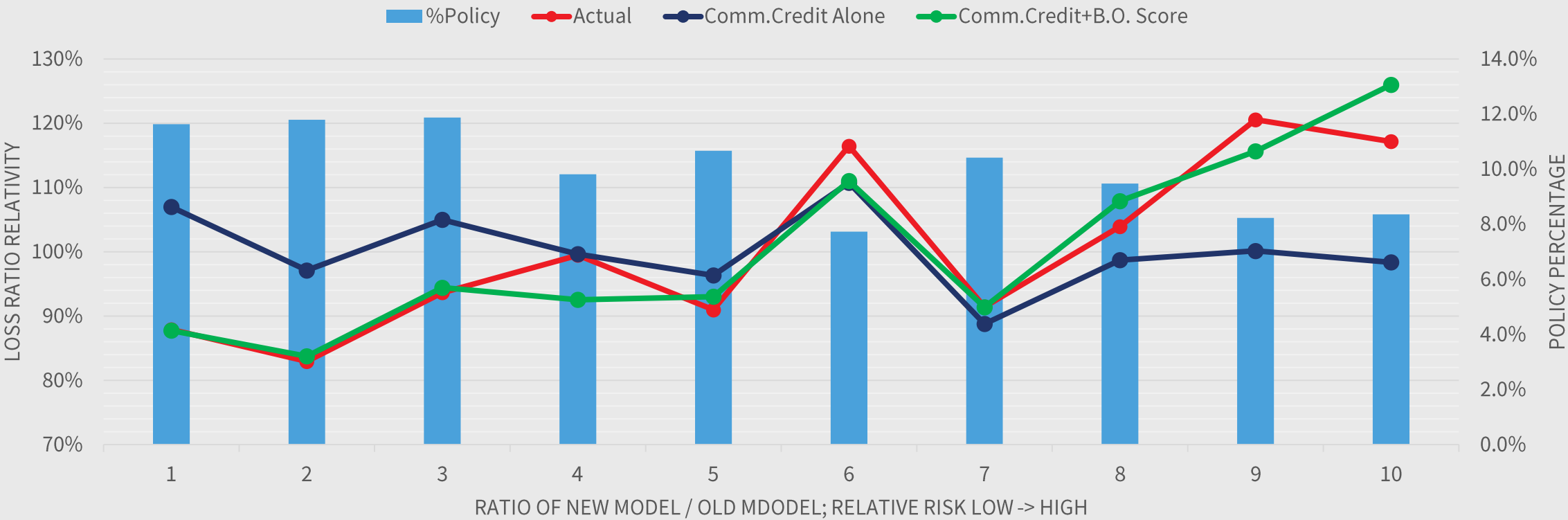
Gini index to quantify loss segmentation

Score	Top/Bottom Ratio	Gini Index
Business Owner Score	1.9544	0.0986
Commercial Credit Score	3.2856	0.1346
Both	4.5753	0.1531

Source: LexisNexis Risk Solutions Internal Study, 2019

Use Both Scores As Model Input

Use double lift chart to directly compare two models

Double Lift Chart of
Using Both Scores vs. Commercial Credit Alone

Legend: ■ %Policy —●— Actual —●— Comm.Credit Alone —●— Comm.Credit+B.O. Score

X-axis: RATIO OF NEW MODEL / OLD MDODEL; RELATIVE RISK LOW -> HIGH

Left Y-axis: LOSS RATIO RELATIVITY

Right Y-axis: POLICY PERCENTAGE

Source: LexisNexis Risk Solutions Internal Study, 2019

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Business with <10 Employees

BUSINESS OWNER ATTRACT SCORE

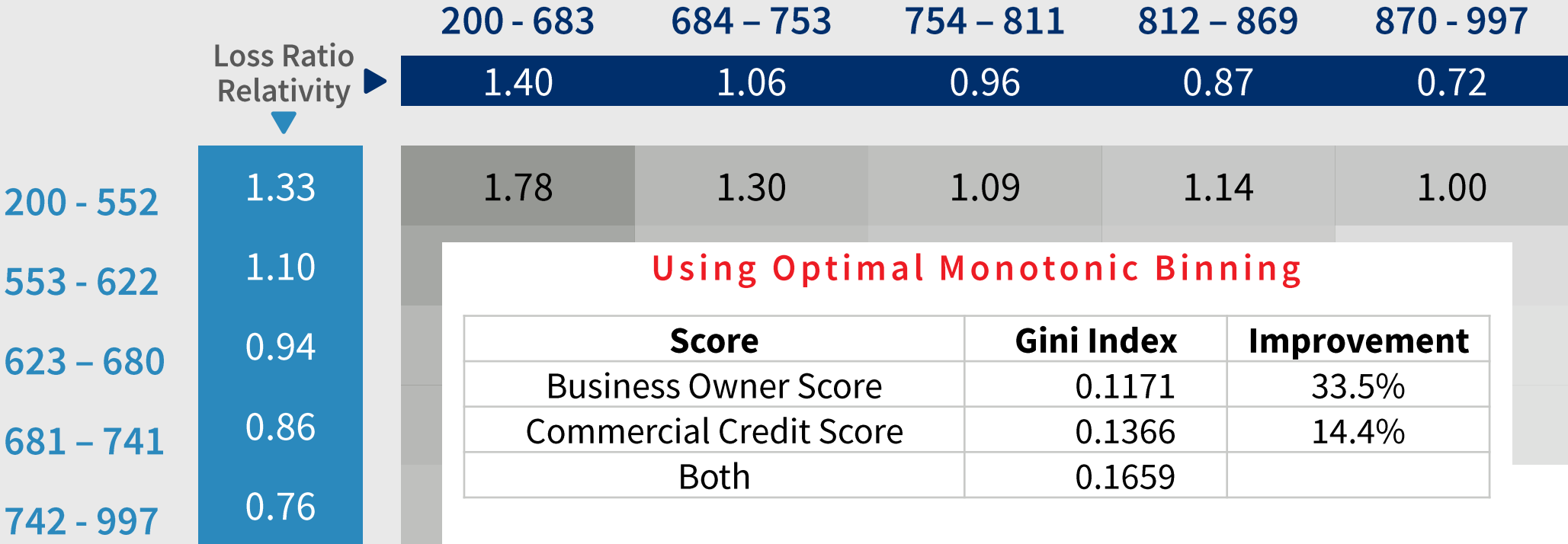|	Loss Ratio Relativity ▶	COMMERCIAL CREDIT ATTRACT SCORE				
		200 - 683	684 – 753	754 – 811	812 – 869	870 - 997
	▼	1.40	1.06	0.96	0.87	0.72
200 - 552	1.33	1.78	1.30	1.09	1.14	1.00
553 - 622	1.10	1.48	1.11	1.07	0.96	0.81
623 – 680	0.94	1.18	1.07	0.93	0.86	0.69
681 – 741	0.86	1.17	0.88	0.93	0.79	0.63
742 - 997	0.76	1.01	0.93	0.76	0.70	0.60

Source: LexisNexis Risk Solutions Internal Study, 2019

Business with <10 Employees

1.86 Million Policies

COMMERCIAL CREDIT ATTRACT SCORE

BUSINESS OWNER ATTRACT SCORE	Loss Ratio Relativity ►	200 - 683	684 – 753	754 – 811	812 – 869	870 - 997
	▼	1.40	1.06	0.96	0.87	0.72
200 - 552	1.33	1.78	1.30	1.09	1.14	1.00
553 - 622	1.10					
623 – 680	0.94					
681 – 741	0.86					
742 - 997	0.76					

Using Optimal Monotonic Binning

Score	Gini Index	Improvement
Business Owner Score	0.1171	33.5%
Commercial Credit Score	0.1366	14.4%
Both	0.1659	

Source: LexisNexis Risk Solutions Internal Study, 2019

Sole Proprietorship

332,313 Policies

BUSINESS OWNER ATTRACT SCORE	Loss Ratio Relativity ▼	COMMERCIAL CREDIT ATTRACT SCORE				
		200 - 683	684 – 753	754 – 811	812 – 869	870 - 997
▶		1.33	1.01	1.00	0.93	0.73
200 - 552	1.32	1.57	1.09	1.07	1.30	0.84
553 - 622	1.09	1.27	1.12	1.20	1.03	0.68
623 – 680	1.02	1.04	0.89	1.24	1.21	0.66
681 – 741	0.91	1.04	1.01	0.94	0.76	0.81
742 - 997	0.67	1.04	0.91	0.58	0.53	0.70

Source: LexisNexis Risk Solutions Internal Study, 2019

Sole Proprietorship

332,313 Policies

COMMERCIAL CREDIT ATTRACT SCORE

BUSINESS OWNER ATTRACT SCORE

	Loss Ratio Relativity ▶	200 - 683	684 – 753	754 – 811	812 – 869	870 - 997
	▼	1.33	1.01	1.00	0.93	0.73
200 - 552	1.32					
553 - 622	1.09					
623 – 680	1.02					
681 – 741	0.91					
742 - 997	0.67	1.04	0.91	0.58	0.53	0.70

Using Optimal Monotonic Binning

Score	Gini Index	Improvement
Business Owner Score	0.1175	36.4%
Commercial Credit Score	0.1029	46.9%
Both	0.1696	

Source: LexisNexis Risk Solutions Internal Study, 2019

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Sole Proprietorship

BUSINESS OWNER ATTRACT SCORE

COMMERCIAL CREDIT ATTRACT SCORE

Business Owner Attract Score	Loss Ratio Relativity ▼	200 - 683	684 – 753	754 – 811	812 – 869	870 - 997
	►	1.33	1.01	1.00	0.93	0.73
200 - 552	1.32	1.57	1.10	1.10	1.10	0.92
553 - 622	1.09	1.27	1.10	1.10	1.04	0.71
623 – 680	1.02	1.04	1.04	1.04	1.04	0.68
681 – 741	0.91	1.04	1.00	1.00	0.68	0.68
742 - 997	0.67	1.04	1.00	0.54	0.54	0.54

Source: LexisNexis Risk Solutions Internal Study, 2019

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Multi Source Business Credit + **Business Owner**

Maximum Coverage And Increased Segmentation

Questions

Thank You

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