

Technical Appendix to ‘Small and Medium-sized Businesses’ Expectations Concerning Tariffs, Costs, and Prices’

April 2025

1 Survey Description

This new survey aims to provide new insights into firm-level behavior and expectations, focusing on US small and medium-sized businesses (SMBs). It does so at a quarterly frequency, covering a wide range of variables that pertain to firm-level outcomes and plans. The survey’s key contribution is that it combines the measurement of firm-level economic data and characteristics with the use of randomized control trials (RCTs) to study causality among key economic variables.

The survey is administered by [Morning Consult](#), which has introduced other large-scale surveys (see, for example, Hajdini et al. (2022, 2024)). The survey was first fielded during 2022:Q2 in a cross-sectional sample of 500 to 600 firms. It became permanent in 2024:Q4. The survey’s questions are designed to be clear and comprehensible, while multiple checks ensure data quality and the absence of bots. The sample reaches SMB owners and other decision-makers who were recruited through several survey panel providers, which are vetted to ensure data quality.¹ The survey design employs a stratified sampling scheme, sampling an equal number of sole proprietors, firms with 2 to 10 employees, firms with 11 to 100 employees, and firms with 101 to 500 employees. This sampling scheme ensures sufficiently accurate measurement for relatively larger firms, which may be less likely to be sampled or reached in a simple random sampling scheme.

¹For more information on Morning Consult’s data-collection methodology, see “Morning Consult: Our Methodology,” Morning Consult, <https://pro.morningconsult.com/our-methodology>. Accessed March 6, 2025.

For our analysis, we exclude several firms that pervasively choose the “stay the same” response for all questions about cost and price expectations at all horizons (a total of 19 questions). We consider these respondents to potentially not be answering the questions to the best of their abilities.

To ensure that the survey sample is nationally representative of SMB characteristics, subsequent survey analysis applies appropriate survey weights to the remaining respondents.²

The resulting weighted sample is representative of the US SMB population. For example, the sample’s most common sectors of operation are construction; retail trade; professional, scientific, and technical services; health care; and social assistance. Firms are most likely to be located in Census Region South, and the median firm in the sample has been operating for more than 10 years (with about 20 percent operating for less than three years), as shown in Table 1. As Figure 1 shows, the survey is also fairly representative of non-targeted characteristics, such as firm revenues.³ The median firm in the sample has revenues within a range of \$100,000 to \$500,000, while Census Bureau data show a corresponding median range of \$250,000 to \$500,000. Overall, our analysis shows that the sample’s firms exhibit other reasonable properties. For example, firms with more employees tend to have higher revenues and be older; sole-proprietor firms tend to be particularly young—more than one-fifth are less than a year old.

The survey complements these variables by eliciting detailed information on the demographic characteristics of SMB owners and decision-makers that is summarized in Table 1. Among survey respondents, 73.1 percent are at the C-level, 1.5 percent are at the vice-president level, and the remaining 25.4 percent are at the director or manager level. Further variables capture respondent race, gender, education, and political affiliation. For example, 49.2 percent of owners and decision-makers are women, 14 percent are Black, and 6.8 percent are Hispanic.

The survey comprises six main parts. The first part focuses on business conditions. It elicits, for example, the importance of major business challenges for SMBs, experienced and expected sales growth, and firms’ outlook on aggregate business conditions and their

²In particular, the analysis employs iterative proportional fitting (IPF) following completion of the survey (“raking,” see, for example, Bishop, Fienberg, and Holland (1975) and Idel (2016)). IPF adjusts contingency table cell values to align them with specified row and column marginals while preserving the table’s structure. These specified marginals represent population targets, and thus the resulting cell weights ensure representativeness of the data. Representativeness targets for the analysis include US Census region, industry, and number of employees, specifically for firms with 500 or fewer employees, as recorded by the US Census 2023 Annual Business Survey.

³Note that the aggregate comparison statistics here are constructed using revenues of all firms, so we would expect the SMB sample to skew more toward lower revenues, which is indeed the case.

effect on firms' own business. The second part measures the financial conditions faced by SMBs. It includes questions on the ease of access to credit, cash flow constraints, and detailed investment plans over the next three months. The third part measures labor market variables. It includes changes in the number of employees over various past horizons and hiring plans within the next three months. The fourth part focuses on supply chain and inventory management. It includes perceived adequacy of inventories, domestic and foreign supply chain frictions, and planned inventory investment over the next three months. The fifth part gauges SMB input costs, output prices, and the role of inflation. It measures, for example, perceived pricing power, changes in year-over-year importance of 12 different cost drivers, experienced and expected cost, and output price changes. The sixth part focuses on research and policy, eliciting a novel measure of firm-level pricing pressure and including a section on US tariff policy. The measure of pricing pressure captures the percentage difference between a firm's prevailing price and the price it would charge if it could freely adjust prices. This measure is complemented by several measures of pricing histories, such as the duration of current price spells.

The section on tariffs starts by asking managers about the tariff increase they expect for 2025, distinguishing between goods imported from Canada, Mexico, China, other Asian countries, and European countries. These questions are followed by an RCT that splits the sample into four groups:

- Group 1: Informed that tariffs on many goods and services may be about 10 percent.
- Group 2: Informed that tariffs may be about 25 percent.
- Group 3: Informed that tariffs may be about 10 percent, but with high uncertainty.
- Group 4 (control group): Receives no information treatment.

Survey participants then report their expectations regarding costs, prices, firm revenues, input sourcing, and profitability. The causal effect of expected tariff increases and associated uncertainty on firms' pricing and operations is derived by comparing responses across groups.

In our analysis of expected tariffs, cost changes, and price changes, we winsorize the top and bottom 2 percent of responses.

The next section contains a selection of survey questions that we use in our analysis to estimate these causal effects.

2 Select Survey Questions

MCSMB26: In the next 12 months, by about what percent do you expect your business' unit costs will change?

- Increase by %_____
- Remain about the same
- Decrease by %_____
- Don't know / No opinion

MCSMB305: Please consider your most important product or service. Now looking ahead, compared to today, by what percent do you expect its price for a typical customer will change in the following time periods?

	Increase by %	Stay the same	Decrease by %
In the next month	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next two months	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next six months	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next year	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____

MCSMB701: In 2025, tariffs may increase for many imported goods and services. How high do you think the new tariffs will be for Canada/Mexico/China/other Asian countries/European countries? Please indicate your answer in percent. [Note: question asked individually for each country/region]

- Average tariff %_____
- Lowest possible tariff %_____
- Highest possible tariff %_____

Tariff treatments: Imports of goods and services to the US will likely be subject to higher tariffs in 2025.

Treatment group A Tariffs on many goods and services may be around 10%.

Treatment group B Tariffs on many goods and services may be around 25%.

Treatment group C Tariffs on many goods and services may be around 10%. However, it is currently highly uncertain how large they will be.

Posterior cost and price changes: Now, please consider your most important product or service again, for a typical customer. We would like to ask you what you think may happen to a few key variables. There is no right or wrong answer—we are interested in your views. Some questions may look similar, but we still ask you to answer them as best as you can.

MCSMB703b: Now looking ahead, compared to today, what changes for your main product or service do you expect in the given time periods? Please indicate your answer in percent. Change in **price** of your main product or service.

	Increase by %	Stay the same	Decrease by %
In the next month	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next two months	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next six months	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next year	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next two years	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____

MCSMB703c: Now looking ahead, compared to today, what changes for your main product or service do you expect in the given time periods? Please indicate your answer in percent. Change in **your business' unit costs**.

	Increase by %	Stay the same	Decrease by %
In the next month	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next two months	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next six months	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next year	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____
In the next two years	<input type="radio"/> _____	<input type="radio"/>	<input type="radio"/> _____

3 Tables and Figures

Table 1: Owner Characteristics

	%		%
Race		Urban vs. Rural	
White	79.8	Urban	30.7
Black	14.0	Suburban	50.3
Other	6.2	Rural	19.0
Ethnicity		Census Region	
Non-Hispanic	93.2	Northeast	19.4
Hispanic	6.8	Midwest	18.5
		South	35.9
Gender		West	26.2
Male	50.8		
Female	49.2	Role	
		C-Level	73.1
Education		Vice President	1.5
less than college	49.0	Director	6.8
bachelor's degree	30.4	Manager	18.6
postgraduate degree	20.5		
Political Affiliation			
Democratic	36.3		
Independent	29.1		
Republican	34.6	$N=444$	

Notes: Weighted percentages of respondents in different demographic groups and categories.

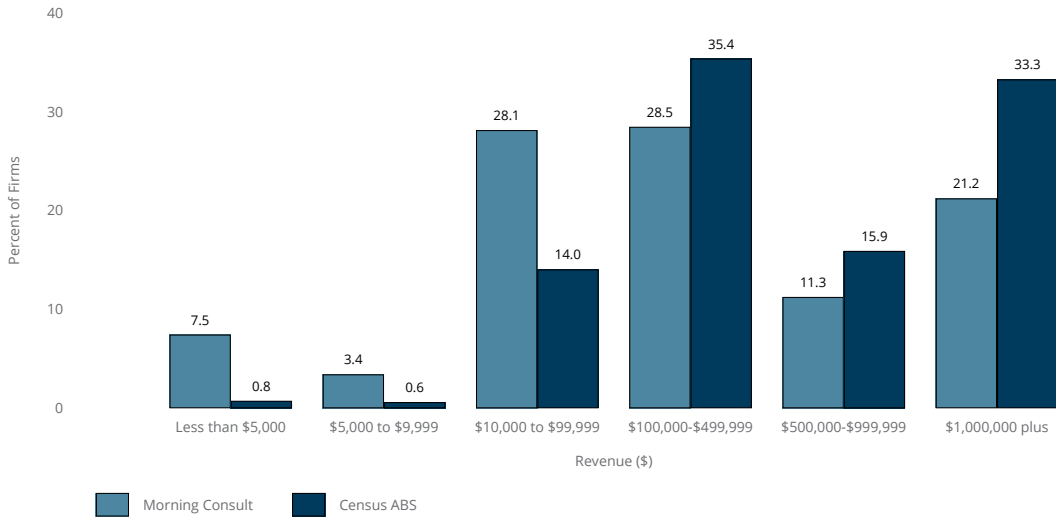
Sources: Authors' calculations using data from Morning Consult.

Table 2: Firm Characteristics

	%		%
Full-Time Employees		Industry	
1	9.9	Agriculture, Forestry, Fishing and Hunting	0.3
2 to 5	51.1	Utilities	0.1
6 to 10	16.5	Construction	14.3
11 to 20	10.7	Manufacturing	4.4
21 to 50	7.1	Wholesale Trade	4.9
51 to 100	2.3	Retail Trade	11.7
101 to 250	1.6	Information	1.7
251 to 500	0.7	Finance and Insurance	4.4
		Real Estate and Rental and Leasing	6.6
Revenue		Professional, Scientific, and Technical Services	16.1
less than \$500k	63.1	Management of Companies and Enterprises	0.3
\$500k to less than \$1m	9.7	Educational Services	1.9
\$1m to less than \$10m	16.9	Health Care and Social Assistance	12.5
\$10m to less than \$50m	5.1	Arts, Entertainment, and Recreation	2.6
\$50m or more	5.3	Accommodation and Food Services	10.4
		Other Services (except Public Administration)	7.8
Time in Business		International Trade	
less than a year	1.2	Exports only	9.8
1 to less than 2 years	5.2	Imports only	5.0
2 to 3 years	13.9	Both exports and imports	12.3
4 to 6 years	13.1	Neither exports nor imports	72.9
7 to 9 years	8.6		
more than 10 years	57.9		
		$N=444$	

Notes: Weighted percentages of firms in different categories.

Sources: Authors' calculations using data from Morning Consult.



Notes: Percentages of firms with revenues in different ranges from the Morning Consult survey of small and medium-sized businesses (based on a weighted sample) and as reported in the US Census 2023 Annual Business Survey.

Sources: Authors' calculations using data from Morning Consult and the US Census Bureau.

Figure 1: SMB Survey vs. Census ABS Revenue Distribution

References

- Bishop, Y.M., S.E. Fienberg, and P.W. Holland. 1975. *Discrete Multivariate Analysis: Theory and Practice*. Cambridge, Mass: The MIT Press.
- Hajdini, Ina, Edward Knotek, John Leer, Mathieu Pedemonte, Robert Rich, and Raphael Schoenle. 2024. “Indirect Consumer Inflation Expectations: Theory and Evidence.” *Journal of Monetary Economics* 145:103568.
- Hajdini, Ina, Edward Knotek, Mathieu Pedemonte, Robert Rich, John Leer, and Raphael Schoenle. 2022. “Indirect Consumer Inflation Expectations.” Working Paper 2022-03, Federal Reserve Bank of Cleveland.
- Idel, Martin. 2016. “A review of matrix scaling and Sinkhorn’s normal form for matrices and positive maps.”