

September 2016



Cash is King: Flows, Balances, and Buffer Days

Evidence from 600,000
Small Businesses

Executive Summary

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For most small business, cash reserves are a critical tool for meeting liquidity needs. Cash reserves provide a readily available means to pay employees and suppliers in normal times and are an important buffer to draw upon during adverse times. This is particularly true for small businesses with limited access to credit and other sources of liquidity. In other words, cash reserves are a key measure of the vitality and security of a small business.

In this inaugural report on the small business sector, the JPMorgan Chase Institute explores the financial lives of small business through the lens of cash inflows, outflows and account balances. We find that, despite the importance of cash reserves, most small businesses hold a level of cash reserves that would provide an insufficient cushion in the face of a significant economic downturn or other disruption. Using a new data asset constructed from over 470 million transactions conducted by 597,000 small businesses from February to October 2015, our analysis shows that half of all small businesses hold a cash buffer large enough to support 27 days of their typical outflows.

This report also explores key industry characteristics that help explain the drivers of cash buffers. Additionally, it offers a new synthesis of publicly available data to begin to draw together a comprehensive view of the small business sector.




These findings are relevant to policy makers who seek to assist small businesses; to nonprofit organizations that coach small business owners; to financial services firms that help small businesses manage their liquidity; and to owners of small businesses who seek benchmarks for guidance in managing their own liquidity.

We hope this report draws attention to cash balances as an important issue, helps people better understand differences among small businesses, and helps in the development of smarter programs, products, and policies that enable small businesses to flourish.

Data



We constructed a sample of 597,000 businesses who hold Chase Business Banking deposit accounts and meet our criteria for small, core metropolitan operating businesses. We then used 470 million anonymized transactions from these businesses to produce a daily view of cash inflows, cash outflows, and end-of-day balances over the nine non-holiday months from February 2015 to October 2015.

597,000 SMALL BUSINESSES

-  Hold Chase Business Banking accounts
-  End-of-day combined balances do not exceed \$20 million each day
-  Do not identify with more than a single address and/or a single industry


CORE METROPOLITAN OPERATING BUSINESSES

We study businesses that have financial activity that indicates they are not seasonal.

-  For at least five of nine months, at least \$500 in outflows and 10 combined inflows and outflows
- 1+** At least one inflow and outflow in each month
-  Are located in one of 367 Metropolitan Areas where Chase has a representative footprint

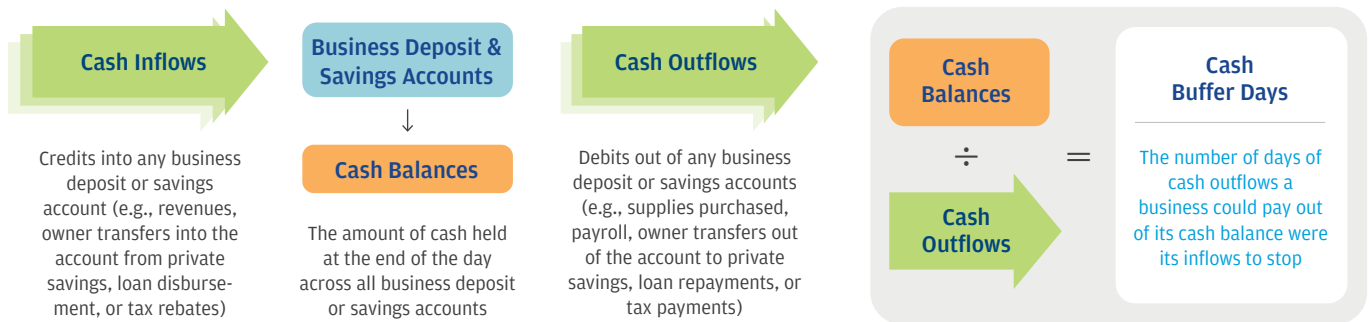
SELECTED KEY INDUSTRIES

We focus on small businesses in 12 representative industries that capture most small business employees

- | | |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
|  Construction |  Personal Services |
|  Health Care Services |  Real Estate |
|  High-Tech Manufacturing |  Repair & Maintenance |
|  High-Tech Services |  Restaurants |
|  Metal & Machinery |  Retail |
|  Other Professional Services |  Wholesalers |

Together, these 12 industries capture 73 percent of for-profit employer small firms and 65 percent of for-profit small business employment

Measuring cash inflows, outflows, balances, and buffer days

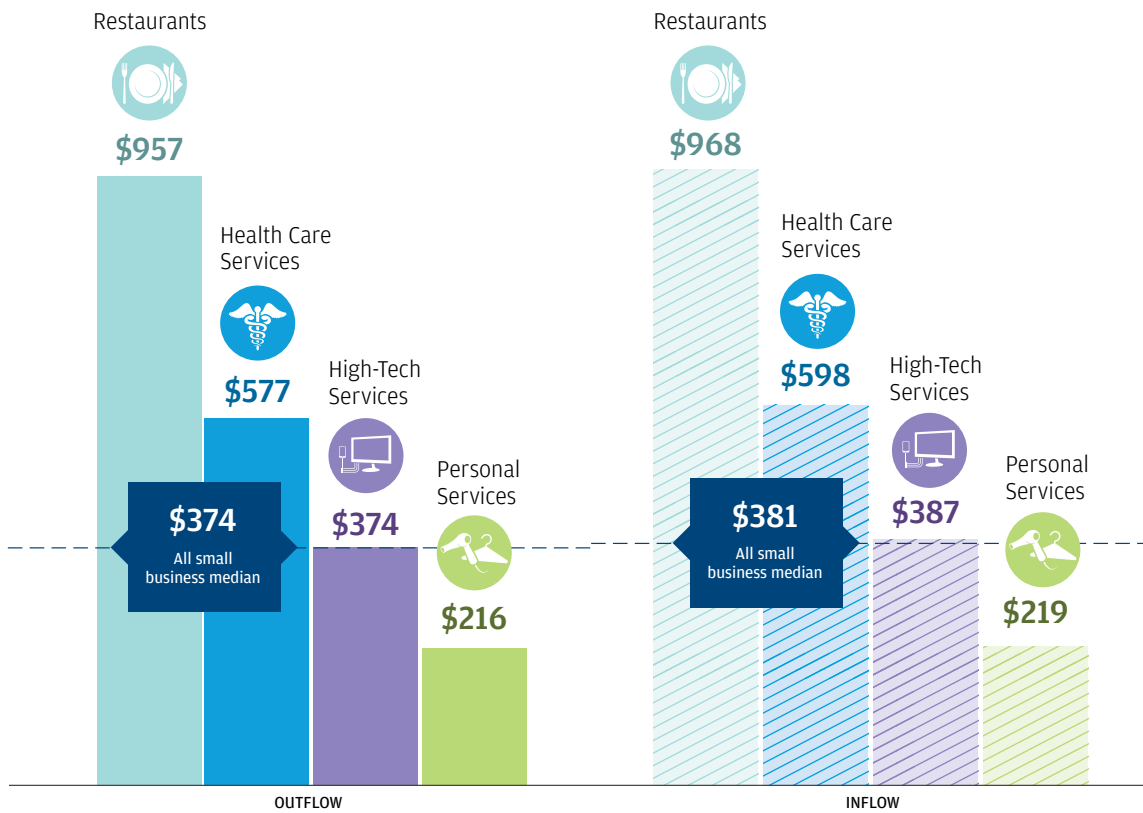


Finding One

The median small business has average daily cash outflows of \$374 and average daily cash inflows of \$381, with wide variation across and within industries.

Outflows refer to debit transactions paid out of any business deposit or savings accounts, such as the purchase of material and payroll, owner transfers out of the account to private savings, loan repayments, or tax

Inflows refer to credit transactions into any business deposit or savings account, such as revenues, owner transfers into the account from private savings, loan funding, or tax



Individual small business average daily inflows and outflows are highly correlated.

Average daily cash inflows and outflows vary widely by industry:

- In the Personal Services industry, daily cash outflows and inflows were the lowest at \$216 and \$219, respectively.
- In the Restaurant industry, daily cash outflows and inflows were the highest at \$957 and \$968, respectively.

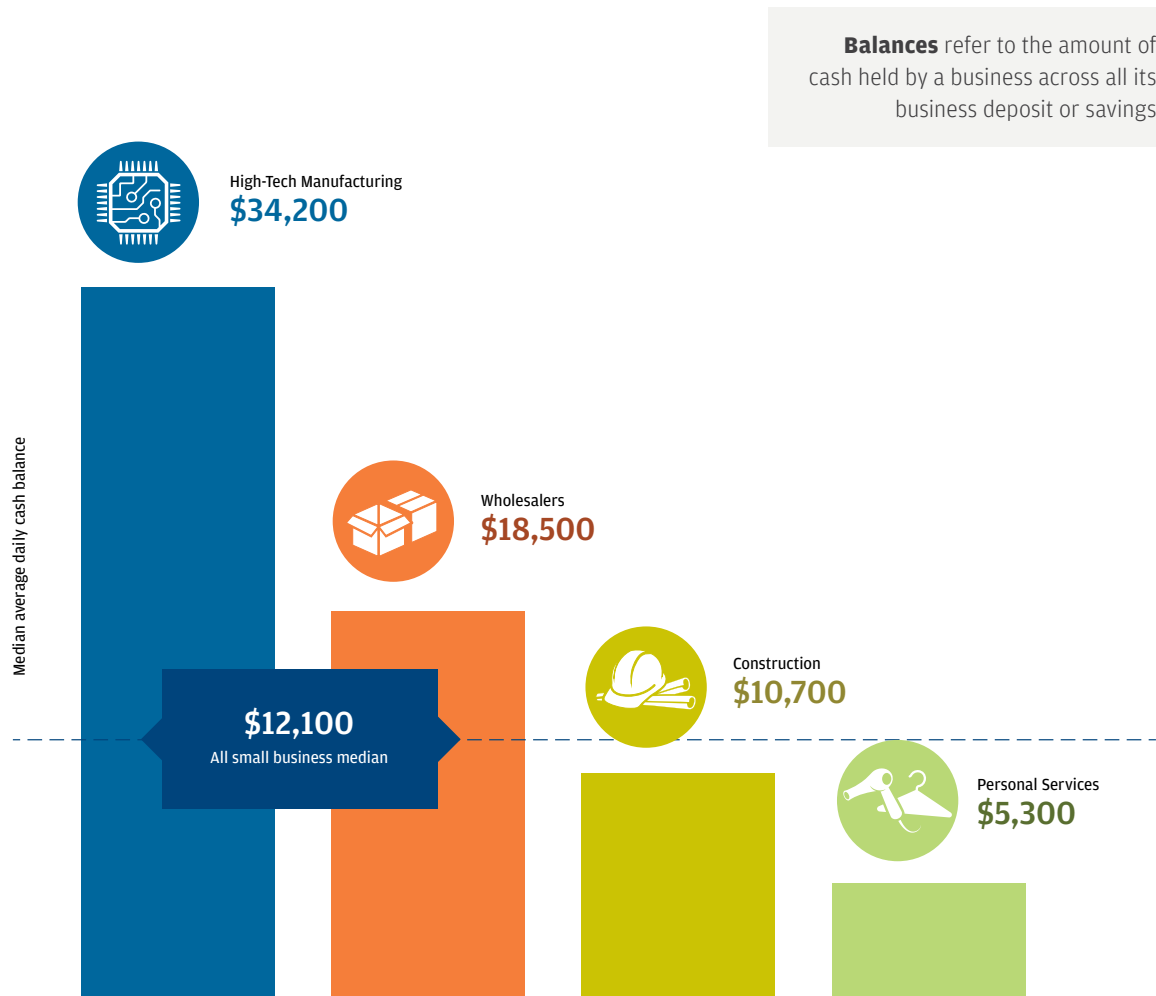
Average daily cash outflows vary substantially within industries as well:

- Outflows varied the most among small businesses within the Wholesale, Metal & Machinery Manufacturing, and High-Tech Manufacturing industries—in these industries small business at the 75th percentile had outflows four times higher than the median.

Cash inflows and outflows were computed by first computing the average daily cash inflow/outflow for individual small businesses, and then computing a median average daily cash inflow/outflow for an industry or our whole sample.

Finding Two

The median small business holds an average daily cash balance of **\$12,100**, with wide variation across and within industries.



Cash balances vary widely by industry:

- In the Personal Services industry, the median small business held a cash balance of \$5,300.
- In the High-Tech Manufacturing industry, the median small business held a cash balance of \$34,200.

Cash balances vary substantially within industries as well:

- In most industries, small businesses at the 75th percentile carried balances 3 to 4 times the median level.

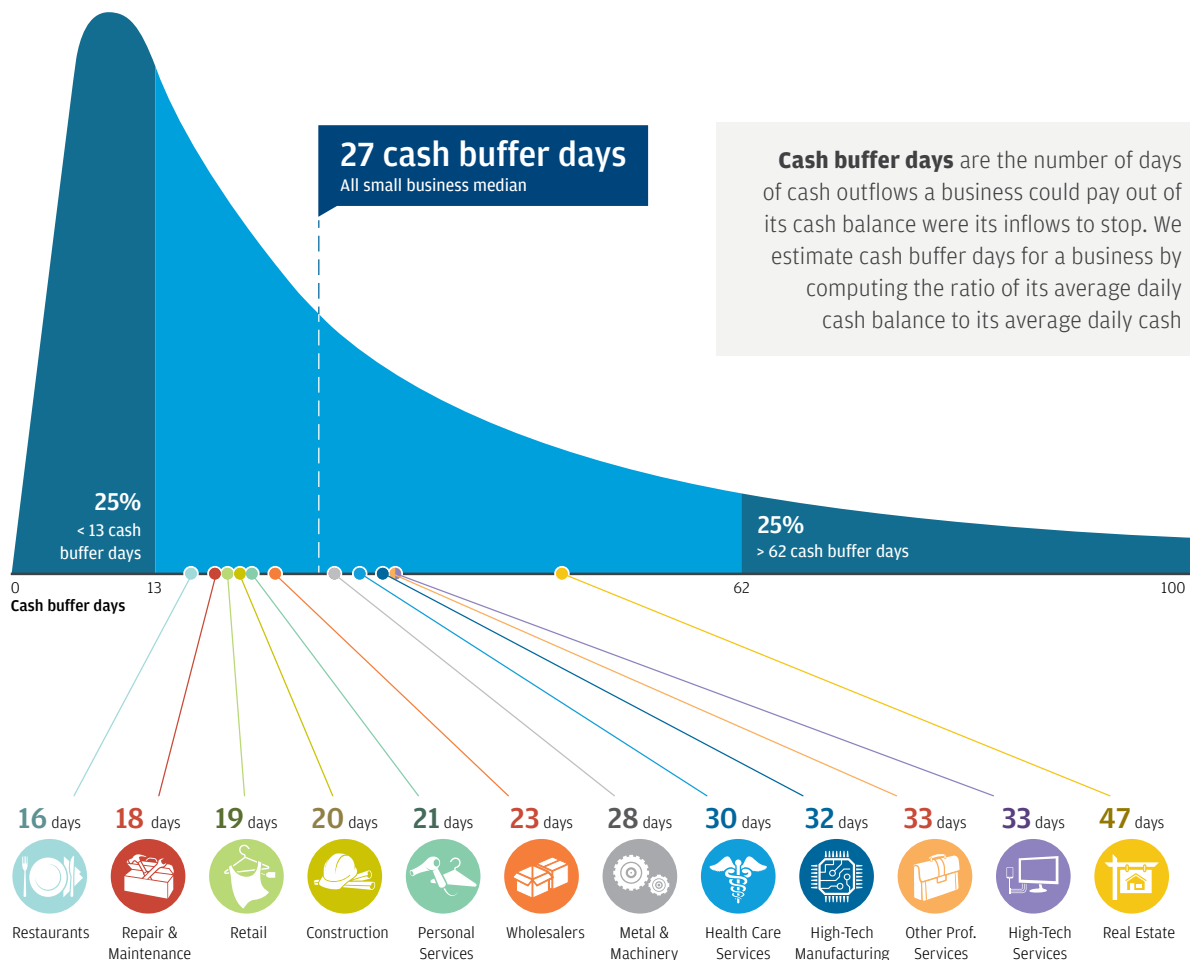
Cash balances were computed by first computing the average daily end-of-day cash balances for individual small businesses, and then computing a median average daily cash balance for an industry or our whole sample.

Finding Three

The median small business holds 27 cash buffer days in reserve.

Half of all small businesses hold a cash buffer of less than one month.

- Moreover, 25 percent of small businesses hold fewer than 13 cash buffer days in reserve.
- In contrast, 25 percent of small businesses hold over 62 cash buffer days in reserve.

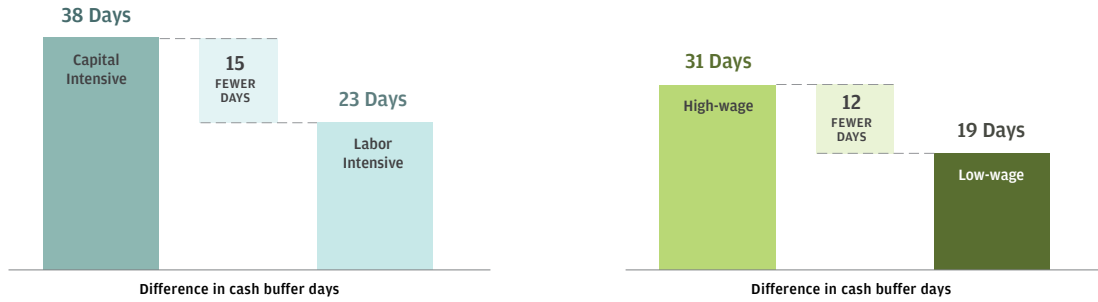


Median cash buffer days vary substantially across industries.

- The median small restaurant holds 16 cash buffer days in reserve.
- The median small business in the real estate industry holds 47 cash buffer days in reserve.

Finding Four

Small businesses in labor-intensive or low-wage industries hold fewer cash buffer days than those in capital-intensive or high-wage industries.



Share of Total US Small Business Employment within Each Segment



Small businesses in industries with a high amount of information technology or intellectual property (IT/IP) do not hold cash buffer days that are very different from low IT/IP industry businesses.

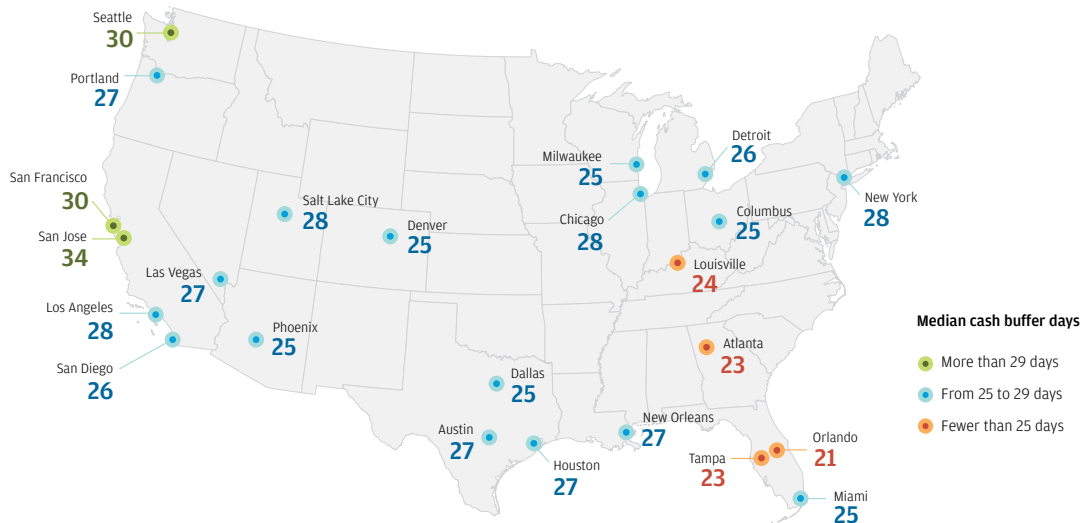
Similarly, small businesses in business-to-business (B2B) industries do not hold cash buffer days that are very different from business-to-consumer (B2C) industry businesses.

We define an industry as labor-intensive if labor costs comprise over 71 percent of its combined labor and capital payments, and capital-intensive otherwise. We define an industry as high-wage if its average labor costs are greater than \$30 per hour, and low-wage otherwise. We define an industry as having a high IT/IP capital allocation if intellectual property and information technology make up more than 12 percent of all capital inputs, and as having a low IT/IP capital allocation otherwise. We define an industry as B2B if over 65 percent of its domestic output was purchased by businesses, as B2C if over 65 percent of its domestic output was purchased by households, and as Mixed otherwise. We performed all calculations at the industry level—these classifications reflect the characteristics of all employer businesses within the industry, not just small businesses within the industry.

Finding Five

Small business cash buffer days vary across metropolitan areas, but no clear pattern emerges from this variance.

Median cash buffer days in our 24 selected cities vary from 21 days in Orlando to 34 days in San Jose, a spread of 60 percent. Differences in industry mix and population between metropolitan areas do not explain this variation.



Cash buffer days are the number of days of cash outflows a business could pay out of its cash balance were its inflows to stop. We estimate cash buffer days for a business by computing the ratio of its average daily cash balance to its average daily cash outflows.

Conclusion

This study leverages a new JPMorgan Chase Institute small business data asset to highlight cash buffer days as a key financial vitality indicator for small businesses. Our research shows substantial variation in cash buffer days for small businesses across and within industries and by region. Many small businesses may not have enough cash to continue operations in the face of a month-long loss of cash inflows due to an economic downturn or other negative shock.

Interventions that help small business owners better understand and manage cash could support the financial health of a sector that provides the economic base for a large portion of the US population. Specifically, our new industry segmentation draws attention to an opportunity to develop new policies that target large numbers of especially financially fragile small businesses in labor-intensive or low-wage industries, in contrast to policies that target small businesses in high-technology, capital intensive, high-wage, or business-serving industries.

Finally, cash buffer days can focus the attention of policymakers, advocates, and private-sector partners on liquidity as an important feature of the credit landscape. New educational programs and diversified credit offerings can help small business owners better understand and manage their liquidity, and substantially improve the financial resilience of the small business sector.

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