

May 2017

# The Gender Gap in Financial Outcomes

## The Impact of Medical Payments



JPMORGAN CHASE & Co.

INSTITUTE

# The Gender Gap in Financial Outcomes

## The Impact of Medical Payments

Diana Farrell  
Fiona Greig

The financial resilience of families is a critical factor in the overall health of the US economy. Americans across the income spectrum experience high levels of income and spending volatility, and health emergencies are among the most common economic hardships. One in six families makes an extraordinary medical payment in any given year. Families' financial outcomes worsen as a result of the extraordinary medical payment and do not fully recover even a year after. This is especially true for women. The gender gap in financial outcomes widens after an extraordinary medical payment.

The JPMorgan Chase Institute compares the financial outcomes of accounts held by women versus men and examines changes in these outcomes that result from an extraordinary medical payment. The Institute assembled a de-identified sample of more than 210,000 core Chase checking account customers between 2013 and 2015, for whom we could infer the gender of the primary account holder and categorize at least 80 percent of expenses.

### Our findings are five-fold:

**Finding 1:** While most primary account holders were men (54 percent), low-income primary account holders were more likely to be women.

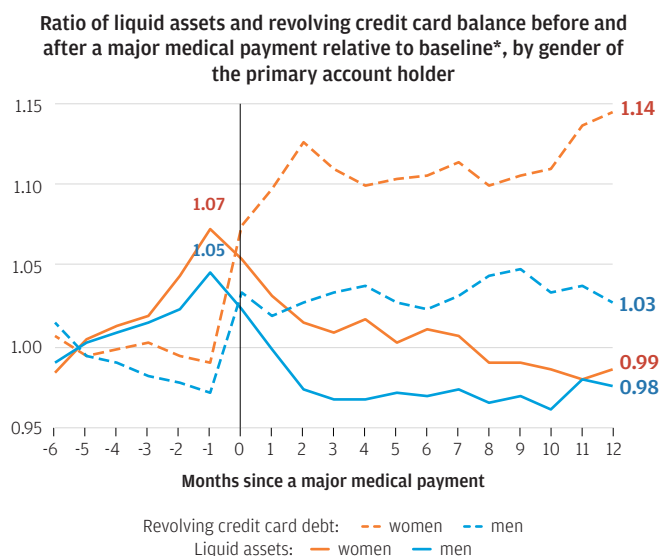
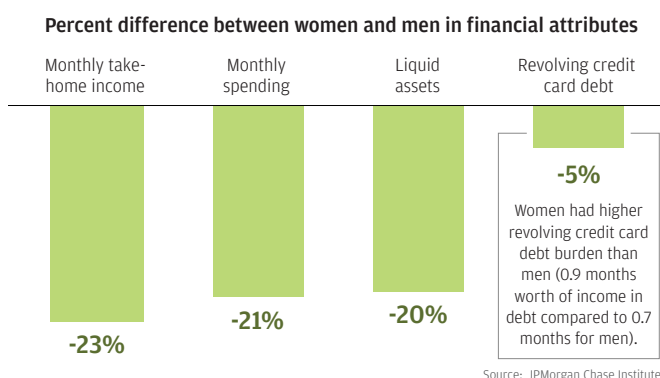
**Finding 2:** There was a gender gap in financial outcomes—women exhibited roughly 20 percent lower levels of income, spending, and liquid assets, and slightly higher credit card debt burden than men.

**Finding 3:** Extraordinary medical payments represented a higher fraction of monthly take-home income for women than for men. Women were in a weaker financial position than men to withstand an extraordinary medical payment.

**Finding 4:** Immediately before making an extraordinary medical payment, women exhibited a larger increase in liquid assets relative to men, suggesting that they were more likely than men to delay a medical payment until they were able to pay.

**Finding 5:** A year after the extraordinary medical payment, the gender gap in financial outcomes had worsened, leaving women with significantly more revolving credit card debt than men.

This brief underscores the importance of efforts to address the gender gap in financial outcomes and reduce debt burdens for women. In addition, should out-of-pocket healthcare costs increase due to changing tax credits or the elimination of essential benefits, women may have to shoulder more of the economic burden of receiving care. As documented here, extraordinary medical payments have negative impacts on financial outcomes, and this is especially true for women.



# Introduction

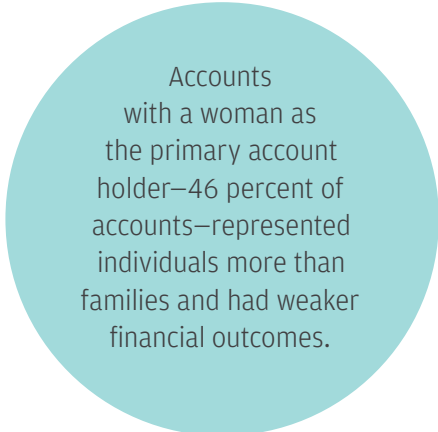
---

The financial resilience of families is a critical factor in the overall health of the US economy. Americans across the income spectrum experience high levels of income and spending volatility, and health emergencies are among the most common economic hardships (Farrell and Greig, 2017). One in six families makes an extraordinary medical payment in any given year. Families' financial outcomes worsen as a result of the extraordinary medical payment and do not fully recover even a year after. As we show here, this is especially true for women. There is a gender gap in financial outcomes that widens after an extraordinary medical payment.

In this brief, the JPMorgan Chase Institute compares the financial outcomes of accounts held by women versus men and examines changes in these outcomes that result from an extraordinary medical payment. The JPMorgan Chase Institute assembled a de-identified sample of roughly 210,000 core Chase checking account customers between 2013 and 2015, for whom we could infer the gender of the primary account holder and categorize at least 80 percent of expenses.<sup>1</sup>

We find that while most primary account holders were men (54 percent), low-income primary account holders were more likely to be women. Accounts held by women were more likely to represent the financial activity of individuals rather than families. We also observed a gender gap in financial outcomes: women exhibited roughly 20 percent lower levels of income, spending, and liquid assets, and slightly higher credit card debt burden than men. Across both men and women, roughly one in six account holders made an extraordinary medical payment in any given year, but these payments represented a higher fraction of monthly take-home income for women than for men. As in the JPMorgan Chase Institute general population, women who made an extraordinary payment were in a weaker financial position to withstand such a payment than men. Immediately before making an extraordinary medical payment, women exhibited a larger increase in liquid assets relative to men, suggesting that they were more likely than men to delay a medical payment until they were able to pay. A year after the extraordinary medical payment, the gender gap in financial positions had worsened, leaving women with significantly more revolving credit card debt and a greater debt burden than men.

This brief underscores the importance of efforts to address the gender gap in financial outcomes and reduce debt burdens for women. In addition, should out-of-pocket healthcare costs increase due to changing tax credits or the elimination of essential benefits, women may have to shoulder more of the economic burden of receiving care. As documented here, extraordinary medical payments have negative impacts on financial outcomes, and this is especially true for women.



Accounts with a woman as the primary account holder—46 percent of accounts—represented individuals more than families and had weaker financial outcomes.

# Findings

## The gender gap in financial outcomes

The JPMorgan Chase Institute's perspective on gender is distinct from typical gender research. For the purposes of our research, the unit of analysis is the primary account holder. A primary account holder can represent a single individual or a family—a group of individuals with administratively linked accounts.<sup>2</sup> Thus, when we refer to women and men in this brief, we reference only the gender of the primary account holder and not other family members whose financial activities may occur through the account. As we show below, accounts with women as primary holders are different from those with men as primary holders in terms of age, income levels, likely family sizes (as proxied by the number of authorized users on the account), as well as the financial outcomes of the account.

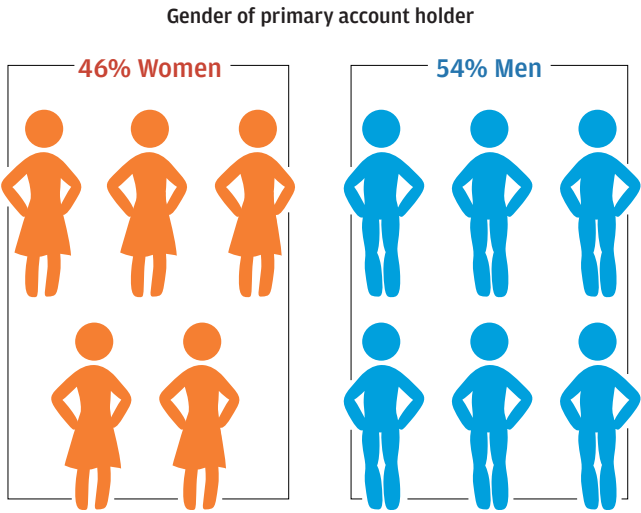
Sixty-two percent of male primary account holders represented families compared to only half of female primary account holders.

### Finding One

While most primary account holders were men, low-income primary account holders were more likely to be women.

Fifty-four percent of account holders were men, and 46 percent were women (Figure 1). The distribution of female account holders differed dramatically across age and income levels (Figure 2). For example, 62 percent of account holders in the lowest income quintile were women, compared to just 30 percent of account holders in the highest income quintile. Roughly 70 percent of account holders who were both low-income (in the first quintile) and 45 years or older were women. Among account holders in the top income quintile, more women were present among younger primary account holders. The gender distribution of primary account holders by age and income is comparable to the gender distribution of household heads by age and income, according to the Current Population Survey. This suggests a potential link between the two designations—one expression of being the “head” of a household may be serving as the fiscal agent and the primary holder of a family’s financial accounts.

Figure 1: Primary account holders were more likely to be men



Source: JPMorgan Chase Institute

**Figure 2: Primary account holders were more likely to be men, except among low-income account holders\***

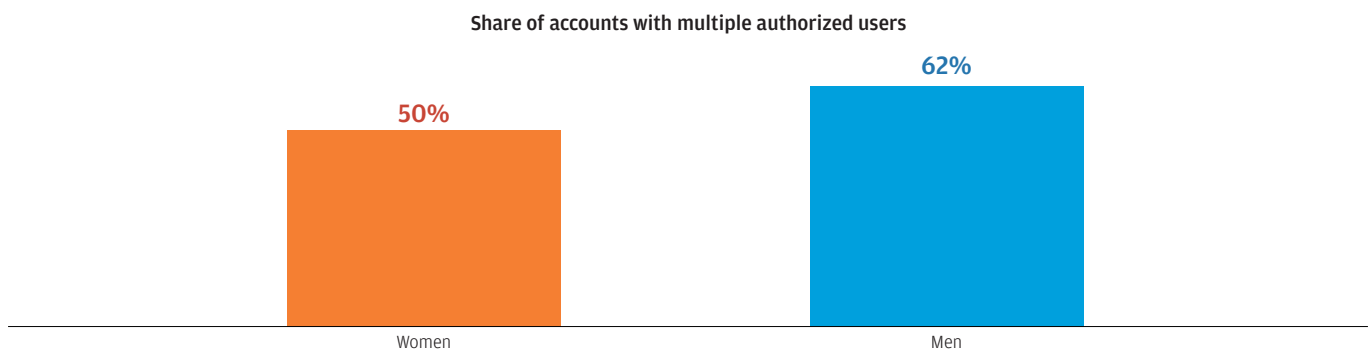
	Age	1st Quintile (<\$20,000)	2nd Quintile (\$20,000 - \$38,800)	3rd Quintile (\$38,800 - \$63,000)	4th Quintile (\$63,000 - \$104,600)	5th Quintile (>\$104,600)	All income groups
Percent of primary account holders who are women (JPMorgan Chase Institute, 2013-2015)	18-24	52%	49%	42%	36%	39%	48%
	25-34	52%	49%	43%	35%	32%	42%
	35-44	56%	53%	46%	37%	29%	42%
	45-54	69%	59%	51%	42%	31%	49%
	55-64	69%	63%	54%	45%	31%	52%
	65-74	71%	60%	51%	38%	23%	47%
	75+	71%	65%	45%	31%	26%	50%
	All ages	62%	57%	49%	39%	30%	46%
Percent of household heads who are women (Current Population Survey, 2014)**	18-24	62%	57%	51%	39%	34%	54%
	25-34	79%	63%	50%	41%	29%	51%
	35-44	78%	66%	55%	44%	31%	50%
	45-54	68%	62%	54%	45%	30%	48%
	55-64	65%	57%	52%	43%	32%	48%
	65-74	66%	61%	49%	41%	28%	49%
	75+	73%	69%	52%	44%	32%	58%
	All ages	71%	63%	52%	43%	30%	50%

\* Darker shading represents a higher prevalence of women.

\*\* Values represent the percent of respondents who self-identified in the Current Population Survey as the head of the household, who are women. This definition allows for a spouse or domestic partner to be present or not. It differs slightly from the CPS "Female householder, no husband present" designation, which includes a family with a female maintaining a household with no husband of the householder present, and is mutually exclusive from "Married-couple family" and "Male householder, no wife present".

Accounts with men as primary account holders were more likely to represent families. As shown in Figure 3, 62 percent of accounts with men as primary holders had multiple authorized users on the account, compared to just 50 percent of accounts with women as primary holders.<sup>3</sup>

**Figure 3: Accounts with men as primary account holders were more likely to represent families**



Source: JPMorgan Chase Institute

Among both women and men, the share of accounts with multiple authorized users increased with age and income (Figure 4). The difference between men and women in the share of accounts with multiple authorized users, however, also grew with age and income. For example, among middle-income households, men aged 18 to 24 were 8 percentage points more likely than women to have additional users on their account, a much smaller difference than the 20 percentage point gap between men and women aged 65-74.

**Figure 4: Older and higher-income account holders were more likely to have multiple authorized users on the account\***

**Percent of accounts with multiple authorized users**

	Age	1st Quintile (<\$20,000)	2nd Quintile (\$20,000 - \$38,800)	3rd Quintile (\$38,800 - \$63,000)	4th Quintile (\$63,000 - \$104,600)	5th Quintile (>\$104,600)	All income groups
Women	18-24	19%	19%	18%	22%	16%	19%
	25-34	26%	26%	29%	33%	39%	30%
	35-44	44%	42%	43%	48%	53%	46%
	45-54	58%	51%	52%	59%	64%	57%
	55-64	51%	46%	50%	55%	67%	52%
	65-74	48%	51%	53%	54%	62%	53%
	75+	60%	68%	65%	67%	71%	65%
	All ages	43%	44%	48%	51%	54%	50%
Men	18-24	21%	27%	26%	26%	29%	24%
	25-34	28%	33%	39%	44%	48%	39%
	35-44	41%	42%	50%	59%	67%	56%
	45-54	57%	51%	57%	66%	76%	64%
	55-64	51%	55%	63%	69%	78%	66%
	65-74	59%	67%	73%	77%	83%	75%
	75+	80%	79%	84%	84%	89%	83%
	All ages	41%	49%	58%	64%	68%	62%

\* Darker shading reflects a higher prevalence of accounts with multiple authorized users.

One expression of being the “head” of a household may be serving as the fiscal agent and the primary holder of a family’s financial accounts.

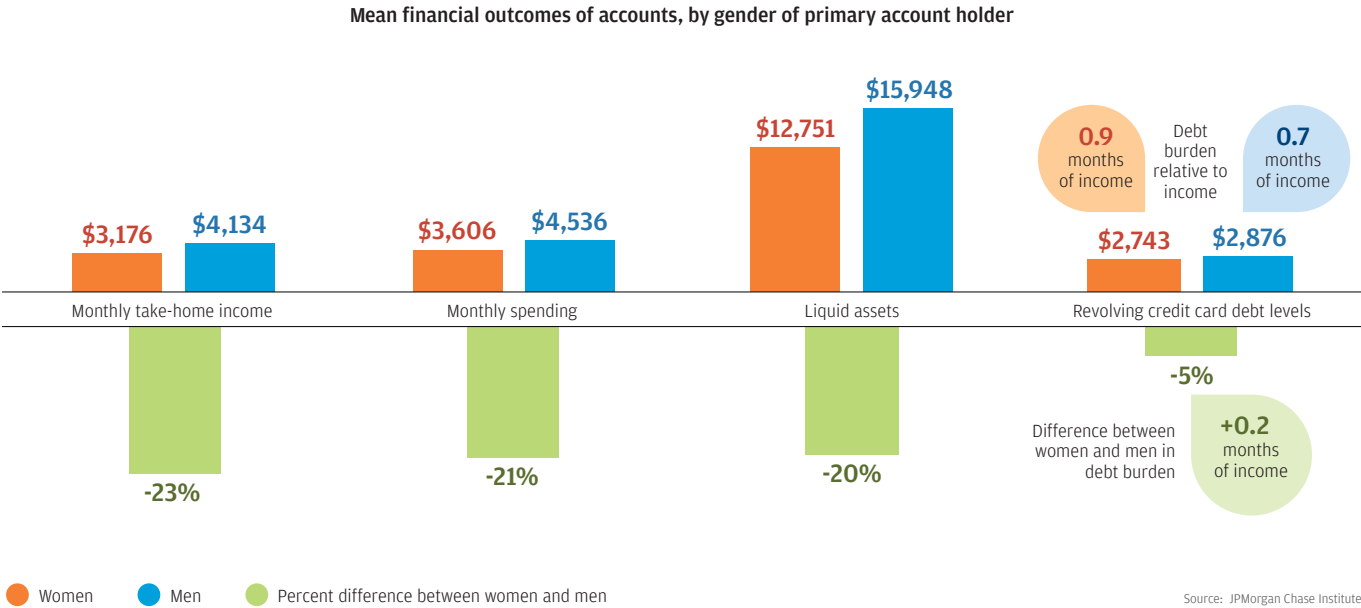
**Finding  
Two**

There was a gender gap in financial outcomes—women exhibited roughly 20 percent lower levels of income, spending, and liquid assets, and slightly higher credit card debt burden than men.

Accounts held by women had on average lower levels of take-home income, spending, and liquid assets than accounts held by men.<sup>4</sup> In general, accounts with multiple authorized users had higher levels of income (39 percent higher), spending (44 percent higher), liquid assets (55 percent higher), and revolving credit card debt balances (14 percent higher) than accounts with a single individual since they represent the financial activity of more people. As a result, gender differences in financial outcomes could exist simply because women's accounts were less likely to have multiple authorized users than men's accounts. Controlling for the presence of multiple authorized users, women's accounts still exhibited 23 percent lower take-home incomes, 21 percent lower spending, and 20 percent lower liquid assets than men's accounts (Figure 5). Both men and women had roughly 3.5 months' worth of spending in liquid assets.

Women were also more burdened with credit card debt than men.<sup>5</sup> Although women had 5 percent less revolving credit card debt in absolute term, women were more likely than men to have a positive revolving credit card balance: 76 percent of women had a revolving credit card balance compared to 70 percent of men.<sup>6</sup> Women's revolving credit card balance represented 0.9 of their monthly take-home income, compared to 0.7 for men, implying a higher monthly debt burden for women relative to their income.

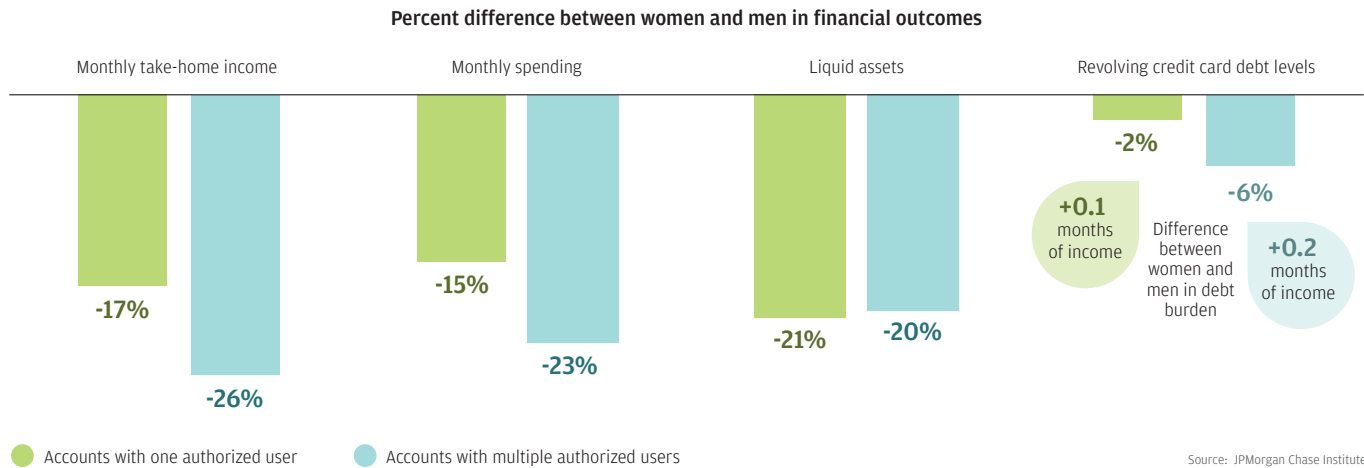
**Figure 5: Accounts with female primary account holders had lower income, spending, and liquid assets and higher revolving credit card debt burden**



The gender gap in financial outcomes is larger for families than for individuals (Figure 6). Among individuals—accounts with only one user—women earned 17 percent less in take-home pay and spent 15 percent less on a monthly basis. In contrast among families—accounts with multiple users—women earned 26 percent less and spent 23 percent less on a monthly basis. The gender gap in liquid assets was similar in percentage terms across individuals and families.

The gender gap in revolving credit card debt burden was also slightly larger for families than individuals. Among individual accounts, women had 0.9 months of income worth of revolving credit card debt compared to 0.8 for men. Among families, this gender gap widened to 0.8 for women and 0.6 for men.

**Figure 6: The gender gap in financial outcomes is larger for families than for individuals.**





## Gender differences in the impact of extraordinary medical payments

We examine gender differences in the incidence, magnitude, and impacts of extraordinary payments related to medical services, auto repair, and taxes—three types of expenses that have a higher likelihood of being unexpected in timing or magnitude and are thus potentially more difficult to weather. We focus on extraordinary medical payments because health emergencies are cited as the most common economic hardships experienced by American families (Board of Governors of the Federal Reserve System, 2016). We use extraordinary auto repair and tax payments as points of comparison.

We define a payment as “extraordinary” if the monthly expense was at least \$400, more than one percent of annual income, and more than two standard deviations away from the family’s average monthly expense in the relevant category.<sup>7</sup> These three criteria ensured that the magnitude of the extraordinary expense was both large and unusual for each family across the income spectrum. We examined changes in families’ overall financial behavior that coincided with an extraordinary medical payment relative to a baseline period between four and six months prior to the payment.<sup>8</sup> For this analysis, we selected a sub-sample of over 47,000 families who made exactly one extraordinary medical payment between 2013 and 2015, out of a total sample of 83,000 families who had ever made extraordinary medical payments. We control for the presence of multiple authorized users when comparing men and women.

It is important to note that in studying medical payments, the timing between event and payment matters. In our findings, we only observe when a payment was made, and not when the medical condition occurred or medical treatment was received. In reality, when a person has a medical event, he or she could treat it immediately or later, and he or she could pay for that treatment immediately or later.<sup>9</sup>

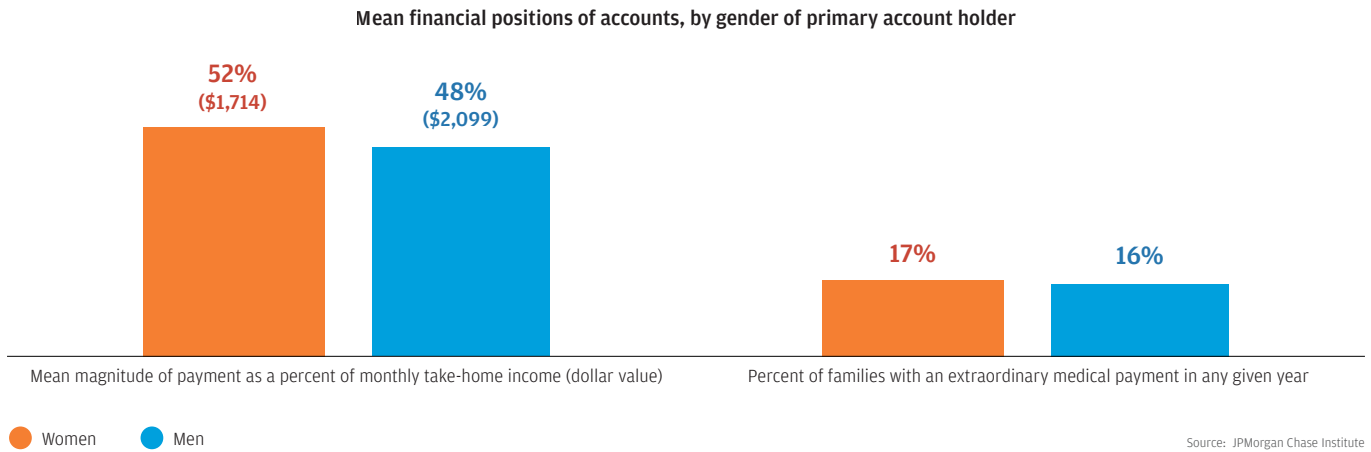
### Finding Three

**Extraordinary medical payments represented a higher fraction of monthly take-home income for women than for men. Women were in a weaker financial position than men to withstand an extraordinary medical payment.**

The mean value of extraordinary payments was 18 percent lower in dollar terms for women than for men (\$1,714 for women compared to \$2,099). As a percentage of monthly take-home income, however, the magnitude of extraordinary medical payments was larger for women, representing 52 percent of a month’s take-home pay for women compared to 48 percent for men. We find that, in any given year, 17 percent of women and 16 percent of men—roughly one in six across both genders—made an extraordinary medical payment (Figure 7). Put differently, women are just as likely as men to have made an extraordinary medical payment but had a lower ability to absorb the medical payment with their monthly income alone.<sup>10</sup>

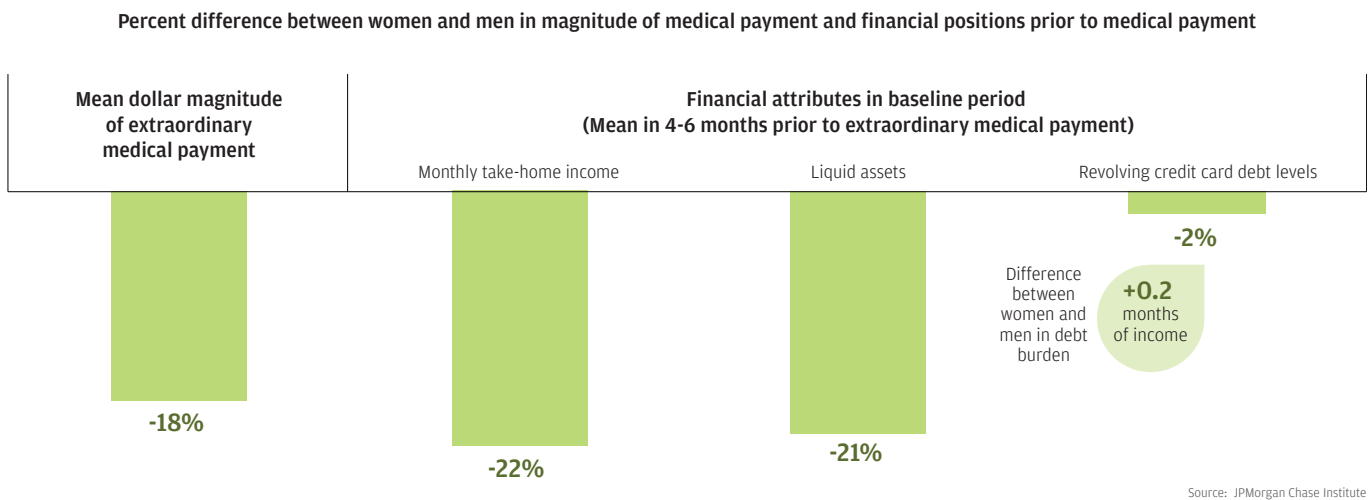
Women had lower ability to absorb an extraordinary medical expense with their monthly income.

Figure 7: The mean magnitude of extraordinary medical payments was considerably lower for women in dollar terms but represented a higher fraction of their monthly take-home income.



As in the general JPMorgan Chase Institute sample, women were in a weaker financial position compared to men prior to making an extraordinary medical payment. Although the magnitude of the medical payment women made was 18 percent lower than for men, women’s incomes and liquid assets were both more than 20 percent lower in the baseline period four to six months prior to the extraordinary medical payment compared to men’s (Figure 8). Women had 2 percent lower revolving credit card debt in the baseline period but a higher debt burden than men, as their revolving credit card balance represented 0.8 months of income compared to 0.6 months of income for men. These gender differences in financial positions are comparable to those observed in the general population and underscore the fact that women were in a weaker financial position than men in general and also when it came to withstanding the impacts of a major medical payment.

Figure 8: Women had lower incomes, liquid assets, and revolving credit debt than men prior to the extraordinary medical payment

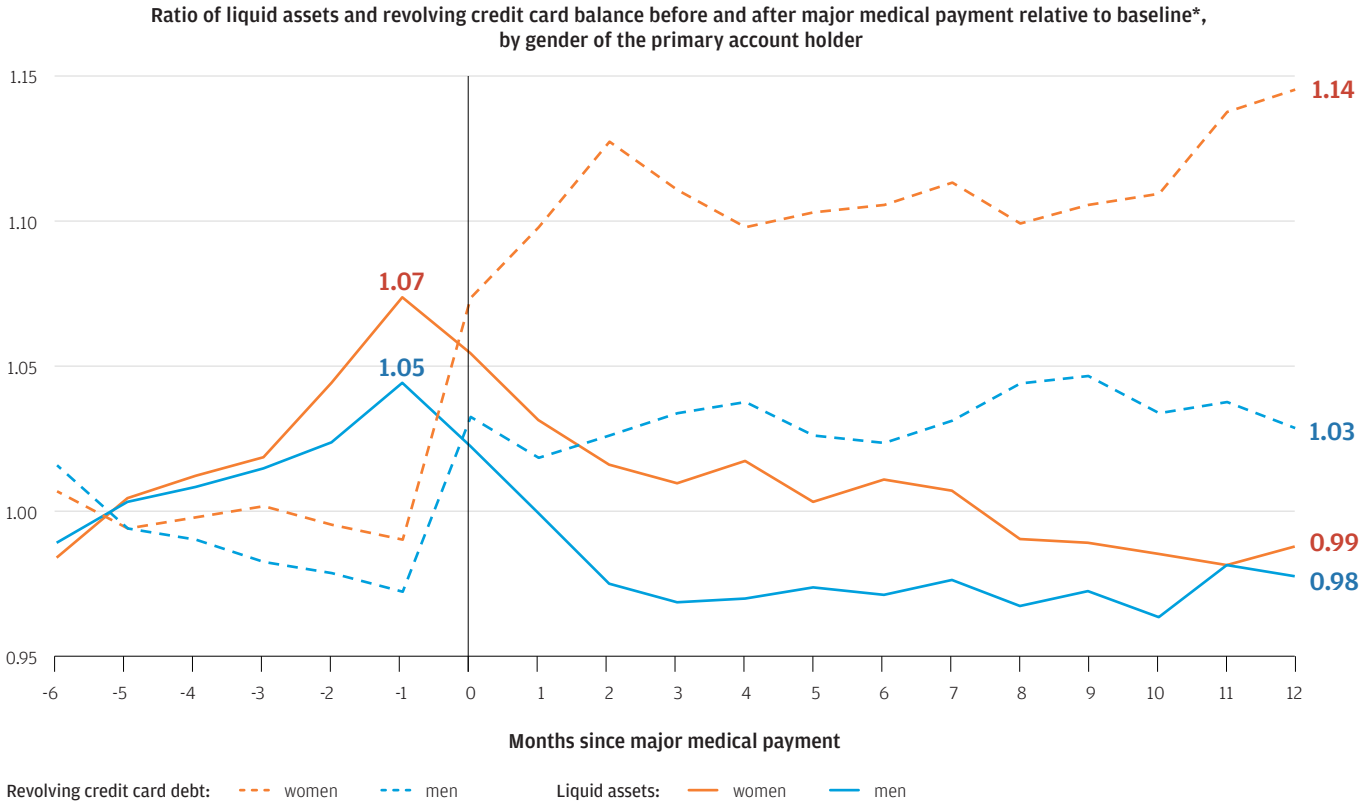


**Finding Four**

Immediately before making an extraordinary medical payment, women exhibited a larger increase in liquid assets relative to men, suggesting that they were more likely than men to delay a medical payment until they were able to pay.

Both men and women timed their medical payments to when they had a higher ability to pay—in months when either income or liquid assets were elevated.<sup>11</sup> This could suggest that families delayed payment of medical bills, or left a medical condition untreated, until they could afford the out-of-pocket expenses. At the time of an extraordinary medical payment, women exhibited a much larger spike in liquid assets relative to men (Figure 9). However, women garnered a 7 percent (\$1,076) increase in liquid assets compared to a 5 percent (\$858) increase in liquid assets for men immediately prior to making the medical payment. The difference in these magnitudes is surprising, especially in light of the fact that the amount of the medical payment was 18 percent lower for women. Altogether, these findings suggest that women were even more likely than men to delay medical payments until they were able to pay for the out-of-pocket expense.

**Figure 9: Women garnered a significantly larger increase in liquid assets prior to the medical payment and had more elevated levels of revolving credit card debt a year after the extraordinary medical payment.**



\*Baseline refers to four to six months prior to a major medical payment.

Source: JPMorgan Chase Institute

**Finding Five**

A year after the extraordinary medical payment, the gender gap in financial outcomes had widened, leaving women with 9 percent more revolving credit card debt than men.

Across the entire sample in aggregate, families were in a worse financial outcome 12 months after an extraordinary medical payment. Families had lower income (-3 percent or -\$112), non-medical expenses (-1 percent or -\$56), liquid assets (-2 percent or -\$410), and higher revolving credit card balance (+9 percent or +\$217) a year after the extraordinary medical payment relative to the baseline.<sup>12</sup>

Importantly, women ended up with significantly more revolving credit card debt than men. Twelve months after the medical payments, women’s mean revolving credit card balance was 14 percent (\$370) higher than baseline levels, whereas men’s was 3 percent (\$75) higher (Figure 9). In fact, women ended up with 9 percent (\$242) more revolving credit card balance than men, despite the fact that they had 2 percent (\$54) less revolving credit card balance prior to the medical payment (Figure 10). Among those who made the extraordinary medical payments, more women (35 percent) increased their revolving credit card balance than men (29 percent). Put differently, the gender gap in credit card debt burden increased as a result of the medical payment. Before the medical payment, women had 0.8 months worth of income in credit card debt compared to 0.6 for men. After the medical payment, women had 0.9 months worth of income in credit card debt compared to still 0.6 for men (Figure 10). This underscores the fact that even during this timeframe of expanding health insurance coverage, families—and women in particular—were not fully insured against the economic consequences of major health payments.

A year after a major medical expense, revolving credit card debt was still 14 percent higher than baseline levels for women and 3 percent higher for men.

**Figure 10: The gender gap in credit card debt burden widened after the extraordinary medical payment**

Percent (and dollar) difference between women and men in financial positions prior to and after an extraordinary medical payment



● Prior to the medical payment (in baseline period 4 to 6 months prior) ● A year after the medical payment

Source: JPMorgan Chase Institute

# Implications

---

**There is a material gender gap in financial outcomes.** This brief highlights key differences in the financial outcomes of accounts held by women versus men. In the first instance, financial accounts are more likely to be held by men than women, except among low-income account holders. Over the three-year period of study, accounts with female primary account holders exhibited 23 percent lower incomes, 21 percent lower spending, 20 percent lower liquid assets, and 5 percent lower revolving credit card debt but higher debt burdens relative to income than accounts with male primary account holders.

This gender gap in financial outcomes was exacerbated by extraordinary medical payments. A year after the extraordinary medical payment, the gender gap in financial outcomes had widened, leaving women with 9 percent more revolving credit card debt than men—a 14 percent increase in revolving credit card debt for women.

**There is a need for solutions to close the gender gap in financial outcomes.** Our findings highlight the importance of designing and creating more solutions that improve women’s ability to weather and rebound from financial shocks. Liquid assets play a critical role in not just extraordinary payments and [income shocks](#), but in weathering the high levels of monthly volatility in income and expenses that we have previously [documented](#) (Farrell et al., 2016; Farrell and Greig, 2017). As we showed in this brief, liquid assets were an important source of funding to cover the medical payment. This highlights the central role short-term savings play in managing expense volatility and the need for policies and solutions to promote emergency savings.

This brief also underscores the need to help women manage debt burdens. Revolving credit card debt played a larger role for women than men in managing a major medical expense. Not only were women more burdened by credit card debt in general, but they were also more likely to increase their revolving credit card balance to help manage an extraordinary medical bill.

**The link between physical and financial health may be stronger for women than men.** Our findings point towards two important links between financial health and physical health, and these links appear to be stronger for women than for men. First, there is a link between ability to pay and medical payments. We found evidence that medical payments were more likely to occur when families had higher income and liquid assets. Families—and women in particular—either delayed medical treatment until they were able to pay, which could be bad for their physical health, or they delayed payment until they were able to pay, which could be bad for their financial health. Second, major medical payments had long-lasting impacts in that they were associated with lower incomes, non-medical expenses, and liquid assets in addition to higher credit card debt a year later. This was particularly true for women, who ended up with significantly more revolving credit card debt than men a year after a major medical payment.

**Healthcare reform efforts should consider the financial implications for women.** As policy makers continue to debate healthcare reform in the US, a key consideration is the out-of-pocket healthcare costs American families face. These costs are driven by insurance premiums and tax credits, healthcare and drug prices, health insurance deductibles, and out-of-pocket maximums, as well as what benefits insurance companies are required to cover. Under the Affordable Care Act, health insurance providers are required to cover “[Essential Benefits](#)”, which include a number of basic healthcare services critical to women (Healthcare.gov, 2017).<sup>13</sup> Should out-of-pocket healthcare costs increase due to changing tax credits or the elimination of essential benefits, women may have to shoulder more of the economic burden of receiving care. As this brief documents, extraordinary medical payments have negative impacts on families’ financial health, and this is even more true for women.



# References

---

- Board of Governors of the Federal Reserve System. “[Report on the Economic Well-Being of U.S. Households in 2015.](#)” Federal Reserve Board, 2016.
- Farrell, Diana and Fiona Greig. “[Coping with Costs: Big Data on Expense Volatility and Medical Payments.](#)” JPMorgan Chase Institute, 2017.
- Farrell, Diana, Peter Ganong, Fiona Greig, and Pascal Noel. “[Recovering from Job loss: The Role of Unemployment Insurance.](#)” JPMorgan Chase Institute, 2016.
- Healthcare.gov. “[What Marketplace health insurance plans cover.](https://www.healthcare.gov/coverage/what-marketplace-plans-cover/)” Retrieved from <https://www.healthcare.gov/coverage/what-marketplace-plans-cover/>.

# Suggested Citation

---

- Farrell, Diana and Fiona Greig. “The Gender Gap in Financial Outcomes: The Impact of Medical Payments.” JPMorgan Chase Institute, 2017.

# Endnotes

- 1 The sample used in this brief is a subset of a sample of roughly 250,000 families used in Farrell and Greig (2017), who had at least five outflows from their checking account in every month, had a credit bureau record on file, used their debit or credit card at least once each month, spent less than 20 percent of total expenses through channels that cannot be categorized, (e.g. checks, cash, payments to unobserved credit cards, and other uncategorizable electronic channels), and made at least one housing payment in each year between 2013 and 2015. Observations in this sample were weighted to match the age and income distribution of the US population in 2014. The gender of the primary account holder could be inferred for roughly 210,000 families, 83 percent of the original sample.
- 2 It is possible for families to list two individuals as primary account holders when opening the account. In this case, whichever individual is listed first on the application is designated as the primary account holder. It may also be the case that some families have multiple accounts with different individuals listed as the primary account holder. An authorized user who is at least 18 years old could also have their own account that is not administratively linked to the family account, for which he or she is the primary account holder.
- 3 The mean number of authorized users per account was 1.7 for male primary account holders and 1.6 for female primary account holders. This difference was less stark than the percentage point gender difference in the share of accounts with more than one authorized users (50 percent for women versus 62 percent for men). This is because while women were significantly less likely than men to have two authorized users (44 percent for women versus 55 percent for men), women and men were equally likely to have three or more authorized users (7 percent). The mean number of authorized users per account was considerably lower than the national household size of 2.7 in the 2014 American Community Survey (ACS), due to the fact that authorized users are typically adults whereas ACS household size would include children of all ages.
- 4 Income includes all inflows into the checking account that have been categorized as income, including payroll-related direct deposits (net of taxes withheld and other deductions), tax refunds, government income, capital income, and other income. Expenses include all outflows from the checking account that have been categorized as expenses, including all debit and credit card transactions as well as all checks, cash withdrawals, and online bill payments. Liquid assets include the deposits and cash equivalents in checking, savings, and Certificate of Deposit (CD) accounts, but not brokerage accounts.
- 5 Observed credit card accounts include most Chase credit card accounts, excluding certain credit cards offered in partnership with other entities.
- 6 In this sample, 100 percent of women and 99 percent of men had a Chase credit card.
- 7 We used \$400 as a minimum threshold in order to provide some comparability between our measure of extraordinary payments and the 2015 Survey of Household Economic Decision making (Board of Governors of the Federal Reserve System, 2016). We allowed for this minimum threshold to scale with income in order to account for higher costs of services typically consumed by high-income families as well as to ensure that we were examining an extraordinary payment that would be material in magnitude across the income spectrum. In aggregate, extraordinary medical payment dollars included doctors visits (19 percent), ambulance and hospital (13 percent), dental (36 percent), optical (8 percent), medical equipment (7 percent), other medical services (15 percent), and prescription drugs (1 percent). Extraordinary auto repair payments included only payments to auto repair shops. Tax payments excluded tax refunds. The standard deviation was calculated using all 36 months, including months with zero payment.
- 8 Between 2013 and 2015, income, non-medical expenses, end-of-month liquid assets, and revolving balance on credit cards increased considerably (8 percent per year for income, 5 percent per year for non-medical expenses, 11 percent per year for liquid assets, and 6 percent per year for revolving credit card balance). To account for this growth, we removed these secular trends from these time series. See Farrell and Greig (2017) for an in-depth discussion of each of the de-trending procedures used to adjust for secular trends.
- 9 After the medical payment, the family might also receive reimbursement from insurance.
- 10 The extraordinary medical payment also represented a slightly higher fraction of liquid assets in the baseline period for women (12 percent) than for men (11 percent). By way of comparison, a similar pattern existed for extraordinary auto repair payments. Auto repair payments were 18 percent lower for women than men (\$1,137 and \$1,396 for women and men respectively), but represented a higher fraction of their monthly take-home pay (35 percent for women compared to 32 percent for men). Men and women were similarly likely to have made an extraordinary auto repair payment (8 percent of women and 9 percent of men). A slightly different pattern emerged for extraordinary tax payments. Tax payments were larger for men than women in both dollar terms and as a percentage of monthly take-home income (\$3,740 or 114 percent of monthly income for women versus \$5,417 or 123 percent of monthly income for men). Men were also more likely to have made an extraordinary tax payment than women (17 percent of women and 21 percent of men). Women were only slightly less likely than men to have made an extraordinary payment in any of the three categories in a given year (36 percent of women and 39 percent of men).
- 11 After controlling for the presence of multiple authorized users, for both men and women, incomes were also elevated relative to baseline levels in the month in which they made the extraordinary medical payment (by 4 percent for women and 3 percent for men), and the component of income that increased the most was tax refunds (55 percent elevated for women and 49 percent elevated for men in the month in which the medical payment was made). See Farrell and Greig (2017) for a more detailed discussion on the income increase that coincided with extraordinary medical payments. We did not find meaningful gender differences.
- 12 As discussed in Farrell and Greig (2017), not all families exhibited all of these outcomes.
- 13 The complete list of the 10 Essential Benefits all insurance plans are required to provide under the Affordable Care Act include ambulatory patient services; emergency services; hospitalizations; pregnancy, maternity, and newborn care; mental health and substance use disorder services; prescription drugs; rehabilitative and habilitative services and devices; laboratory services; preventive and wellness services (including birth control and breastfeeding support); and pediatric services, including oral and vision care (Healthcare.gov, 2017).

# Acknowledgments

We thank Chuin Siang Bu, Chenna Cotla, and Kerry Zhang for superb research assistance. We would also like to acknowledge the contributions and support of the entire JPMorgan Chase Institute team and the JPMorgan Chase Intelligent Solutions team of data experts, without whom this research would not have been possible.

We would like to acknowledge Jamie Dimon, CEO of JPMorgan Chase & Co., for his vision and leadership in establishing the Institute and enabling the ongoing research agenda. Along with support from across the Firm—notably from Peter Scher, Len Laufer, Max Neukirchen, Joyce Chang, Matt Zames, Judy Miller, and Alexis Bataillon—the Institute has had the resources and support to pioneer a new approach to contribute to global economic analysis and insight.

---

This material is a product of JPMorgan Chase Institute and is provided to you solely for general information purposes. Unless otherwise specifically stated, any views or opinions expressed herein are solely those of the authors listed and may differ from the views and opinions expressed by J.P. Morgan Securities LLC (JPMS) Research Department or other departments or divisions of JPMorgan Chase & Co. or its affiliates. This material is not a product of the Research Department of JPMS. Information has been obtained from sources believed to be reliable, but JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) do not warrant its completeness or accuracy. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. The data relied on for this report are based on past transactions and may not be indicative of future results. The opinion herein should not be construed as an individual recommendation for any particular client and is not intended as recommendations of particular securities, financial instruments, or strategies for a particular client. This material does not constitute a solicitation or offer in any jurisdiction where such a solicitation is unlawful.

©2017 JPMorgan Chase & Co. All rights reserved. This publication or any portion hereof may not be reprinted, sold, or redistributed without the written consent of J.P. Morgan.