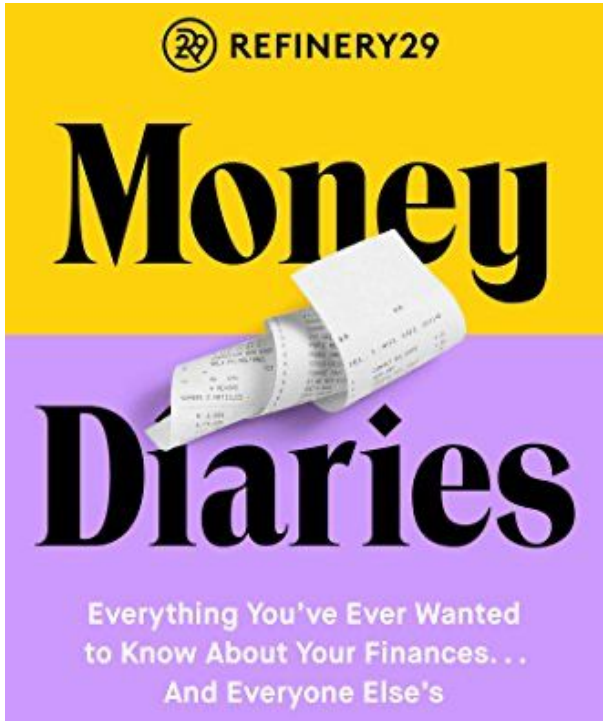
UNDERSTANDING HOW MILLENNIAL WOMEN SPEND THEIR TIME & MONEY

LISA VANDERVOORT

$117,000


REFINERY29
Money
Diaries
Everything You've Ever Wanted
to Know About Your Finances...
And Everyone Else's

Refinery29 Money Diaries

- Scraped 476 diaries on refinery29.com from January 18, 2019-June 3, 2020
- **Metadata**: self-reported personal and financial information

A Week In Southwest Michigan On A Joint $146,000 Income

Occupation: Accountant
Industry: Nonprofit
Age: 43
Location: Southwest Michigan
My Income: $23,000 between my two jobs
My Husband's Salary: $115,000 plus ~$8,000 bonus
My Paycheck Amount: $325 (biweekly) and $275 (2x/month)
My Husband's Paycheck Amount (Biweekly): $3,300
Monthly Expenses
Mortgage: $1,797 for our four-bedroom, 3.5-bathroom home on one acre. I live with my husband, E., and two kids. Mortgage should be paid off in six and a half more years!
Car Insurance: $230 for three vehicles
Utilities: $200-$350
YouTube TV, Philo TV, Hulu, Netflix: $80
Internet: $89
Cell Phones: $160 for four lines
Life Insurance: $45
Health Insurance: $150 copay for a PPO with $6,5000 deductible, plus $350 to a HSA ($9,000 balance), pretax via my husband's job
Dental Insurance, Life, LTD, ADD: $150 pretax via my husband's job
401(k): My husband deducts 8% ($767/month) pretax, and gets 6% match and 4% gift. It has a $300,000 balance, and I have $100,000 from a previous job.
Savings: $500 to our kids' college fund, with $50,000 balance, and an average of $1,200/month to general savings, which has a $28,000 balance.
Personal Account Deductions: $400 for my husband, $200 for me. We use these for individual spending like meals/drinks with our friends, and my clothing and husband's sports/equipment.

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Refinery29 Money Diaries

- **Text Data:** A seven-day diary of what the diarist does and how they spend their money

Day Five

7:30 a.m. — Back to work! Same morning routine as every other workday. Coffee at the deli. **$1**

12 p.m. — My boss is out sick today, so it's a relatively calm day. English muffin breakfast. Lunch is rice, chickpeas, and veggies. Also grab my usual afternoon coffee. **$1.09**

6 p.m. — I meet up with a group of friends and head over to an antiwar protest nearby. I typically focus my activism on legislative wins, but given the urgency of the situation I think solidarity is an important reason to show up. There's a good crowd and the speakers are great, but it is a particularly cold night, so about 40 minutes in I stop feeling my toes!

8 p.m. — I somehow make it out without frostbite, so five of us head over to a falafel spot for dinner. I get a spicy falafel sandwich and a piece of baklava. Food, friends, and, most importantly, heat — what else do you need? **$13.78**

9:30 p.m. — Head to my neighborhood and meet my friend, H., at a craft beer bar near my place. H. lives in my neighborhood as well, and it's nice to have a friend close by for impromptu nightcaps. I get an IPA and a wheat ale and Venmo him for my part of the bill. Tired and happy, I head to bed by 11! **$22**

Daily Total: $37.87

Who are the Refinery29 diarists?

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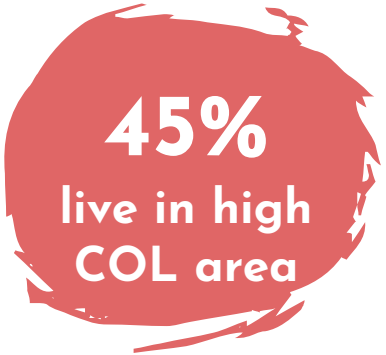

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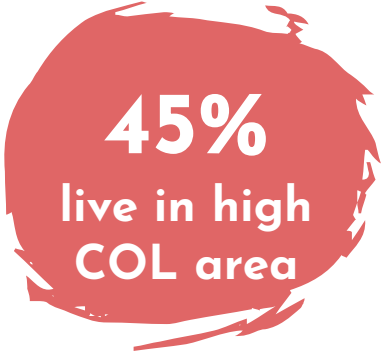

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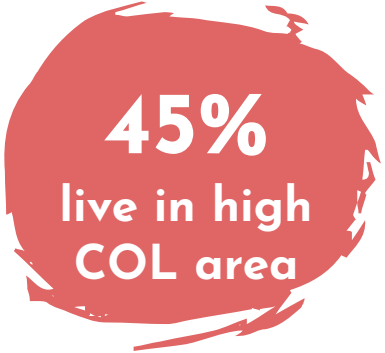


Topic Modeling of All Diarists: NMF (nouns)

Friends/ Socializing	Cooking/ Food	Work
Friends	Coffee	Office
Friend	Class	Breakfast
Bar	Cup	Meeting
Wine	Butter	Desk
Card	Salad	Salad
Class	Milk	Alarm
Couple	Shop	Door
Drinks	Wine	Chicken
Food	Days	Food
Car	Partner	Boss

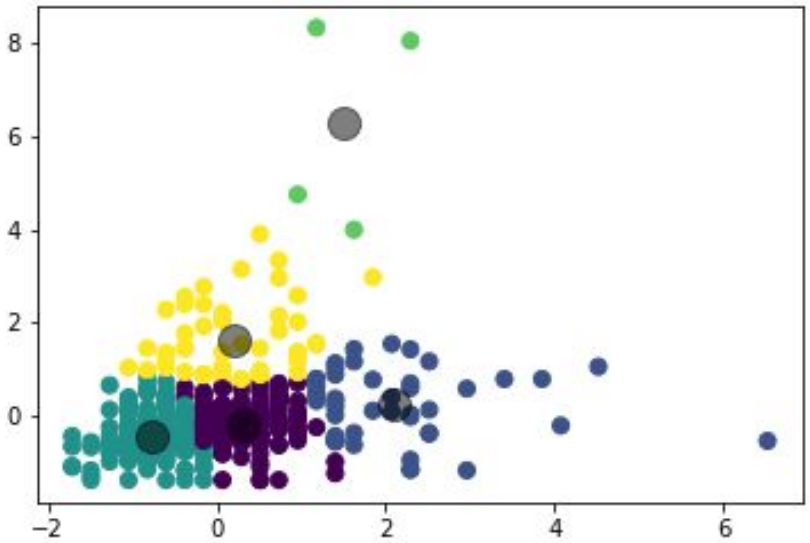
Topic Modeling of All Diarists: NMF (nouns)

Friends/ Socializing	Cooking/ Food	Work	Dogs	Self-care
Friends	Coffee	Office	Dog	Mom
Friend	Class	Breakfast	Dogs	Parents
Bar	Cup	Meeting	Walk	Shower
Wine	Butter	Desk	Car	Food
Card	Salad	Salad	Business	Hair
Class	Milk	Alarm	Dog walk	School
Couple	Shop	Door	Home dog	Phone
Drinks	Wine	Chicken	Friends	Breakfast
Food	Days	Food	Breakfast	Face
Car	Partner	Boss	Food	Cream

Topic Modeling of All Diarists: NMF (nouns)

Friends/ Socializing	Cooking/ Food	Work	Dogs	Self-care	Family	Husband	Baby
Friends	Coffee	Office	Dog	Mom	Kids	Husband	Baby
Friend	Class	Breakfast	Dogs	Parents	School	Husbands	Coffee
Bar	Cup	Meeting	Walk	Shower	Breakfast	Breakfast	Mom
Wine	Butter	Desk	Car	Food	Partner	Chicken	Milk
Card	Salad	Salad	Business	Hair	Coffee	Water	Shower
Class	Milk	Alarm	Dog walk	School	Paper	Food	Couple
Couple	Shop	Door	Home dog	Phone	Couple	Tea	Car
Drinks	Wine	Chicken	Friends	Breakfast	Sister	Car	Dad
Food	Days	Food	Breakfast	Face	Family	Store	Family
Car	Partner	Boss	Food	Cream	Chicken	Days	Cup

K-means Clustering on the Diarists' Metadata



K-means Clustering on the Diarists' Metadata

	Cluster 1: Early 20s, entry-level earners
Mean age (years)	24.2
Mean salary (yearly)	$49,992
# Diarists	210

K-means Clustering on the Diarists' Metadata

	Cluster 1: Early 20s, entry-level earners	**Cluster 2:** Late 20s, average earners	**Cluster 3:** Late 20s, high earners
Mean age (years)	24.2	29.1	28.6
Mean salary (yearly)	$49,992	$63,707	$159,662
# Diarists	210	166	50

K-means Clustering on the Diarists' Metadata

	Cluster 1: Early 20s, entry-level earners	Cluster 2: Late 20s, average earners	Cluster 3: Late 20s, high earners	Cluster 4: Mid 30s, average earners	Cluster 5: Mid 30s, high earners
Mean age (years)	24.2	29.1	28.6	37.2	34.5
Mean salary (yearly)	$49,992	$63,707	$159,662	$85,446	$406,250
# Diarists	210	166	50	46	4

Topic Modeling NMF (nouns): Early 20s, Entry-level earners

Write about on self-discovery (travel) and self-care (self-care, purchases, fitness)

Topic Modeling NMF (nouns): Late 20s Comparisons

Write about immediate family (husband, baby, mom) and home (dogs, home routines)

Cluster 2: Late 20s, average earners	Cluster 3: Late 20s, high earners
Home routines Dogs Husband Baby/mom Work Friends/socializing	Dating Parties Food Home Fitness Work

Write about socializing and self-care

Topic Modeling NMF (nouns): Mid 30s Comparisons

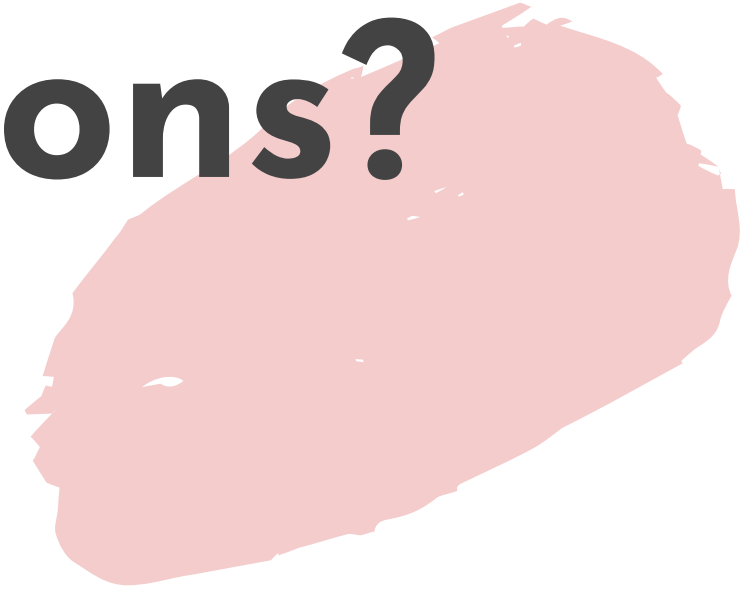
Write about family and home

Cluster 4: Mid 30s, average earners	Cluster 5: Mid 30s, high earners
Work Kid routines Family Adult routines Pets Food	Family routines Work Parenting Self-care Family

Write about family, but also self-care

Refinery29 Money Diary Recommender

Questions?

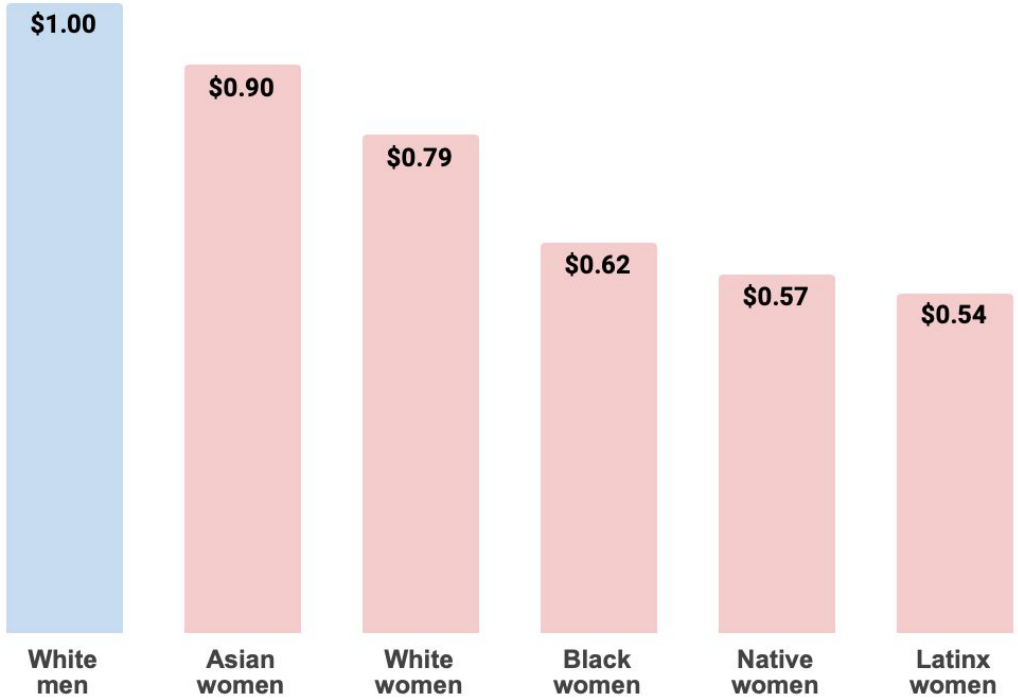


Appendix

Gender Pay Gap (2018): Overall

SOURCE: https://www.americanprogress.org/issues/women/reports/2020/03/24/482141/quick-facts-gender-wage-gap/

Gender Pay Gap (2018): By Race



SOURCE: https://www.americanprogress.org/issues/women/reports/2020/03/24/482141/quick-facts-gender-wage-gap/

Millennial women wrote about...

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Topic Modeling on the Clusters

Cluster 1: Early 20s, entry-level earners	**Cluster 2:** Late 20s, average earners	**Cluster 3:** Late 20s, high earners	**Cluster 4:** Mid 30s, average earners	**Cluster 5:** Mid 30s, high earners
Self-care Purchases Dogs/pets Food Fitness Travel Work Family	Home routines Dogs Husband Baby/mom Work Friends/socializing	Dating Parties Food Home Fitness Work	Work Kid routines Family Adult routines Pets Food	Family routines Work Parenting Self-care Family

Topic Modeling: Early 20s, Entry-level earners

Self-care	Purchases	Dogs/Pets	Food	Fitness	Travel	Work	Family
Hair	Sister	Dog	Husband	Class	Partner	Office	Mom
Walk	School	Walk	Kids	School bus	Airport	Bar	Parents
Episode	Card	Dogs	Water	Studio	Hotel	Chicken	Dad
Gym	Routine	Car	Tea	Classes	Restaurant	Salad	Car
Water	Book	Cream	Chicken	Yoga	Flight	Train	Family
Face	Credit	Business	Table	Gym	Shop	Boss	Weekend
Teeth	Kids	School	Media	Alarm	Water	Desk	Brother
Routine	Credit card	Dog walk	Cafe	Workout	Card	Door	Water
Butter	Kitchen	Office	Cream	Rest	Pay	Tonight	Pay
Makeup	Bacon	Ice cream	Pajamas		Flights	Alarm	Door

Topic Modeling: Late 20s, Average earners

Home routines	Dogs	Husband	Baby/Mom	Work	Friends/ Socializing
Food	Dog	Husban	Baby	Coffee	Friend
Walk	Walk	Chicken	Milk	Office	Friends
Breakfast	Dogs	Breakfast	Coffee	Cup	Bar
Days	Breakfast	Office	Downstairs	Days	Office
School	Home dog	Food	Granola	Meeting	Food
ROutine	Office	Husbands	Bowl	Class	Class
Phone	Coffee	Salad	Mom	Cat	Card
Hair	Dog walk	Shower	Yogurt	Breakfast	Alarm
Alarm	Friends	Pizza	Cup	Store	Water
Break	Park	Car	Shower	Episode	Party

Topic Modeling: Late 20s, High earners

Dating	Parties	Food	Home	Fitness	Work
Coffee	Office	Butter	Husband	Office	Kids
Friends	Baby	Parents	Dog	Gym	Clothes
Friend	Shower	Cream	Food	Friend	Door
Bar	Husband	Walk	Office	Water	Coffee
Card	Company	Meetings	Wine	Food	Team
Salad	Emails	Chocolate	Coffee	Desk	Friends
Book	Party	Break	Car	Workout	Breakfast
Store	Food	Ice	Store	Breakfast	Office
Date	Mom	Weekend	Family	Days	Chicken
Drinks	Dad	Ice cream	Husband	Card	Family

Topic Modeling: Mid 30s, Average earners

Work	Kid Routines	Family	Adult Routines	Pets	Food
Wine	Kids	Husband	Girls	Dogs	Baby
Bar	Partner	Boys	School	Business	Banana
Desk	School	Son	Hair	Cats	Pizza
Alarm	Boys	Husbands	Gym	Boyfriend	Chicken
Train	Daycare	Rice	Chicken	Airport	Milk
Class	Commute	Desk	Husband	Town	Sister
Chicken	Paper	Email	Meeting	Dogs	Strawberries
Yogurt	Daughter	Yogurt	Parents	Tea	Cheese
Date	Game	Meeting	Project	Lots	Daycare
kitchen	Lunches	bar	Guest	Tacos	Butter

Topic Modeling: Mid 30s, High earners

Family Routines	Work	Parenting	Self-care	Family
Home	Work	Kids	Dogs	Coffee
Work	Dogs	Business	School	Work
Bed	Walk	Husband	Wine	Wedding
School	Break	Order	Husband	Family
Coffee	Order	School	Gym	Home
Parents	Wine	Coffee	Life	Dress
Office	Car	Estate	Health	Mom
Food	Online	Dog	Workout	Gym
Store	City	Door	Law	Brother
Family	coffee	Phone	Shower	Dad

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#ffd966
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