

Equity & Justice for All!

QUESTION

How much does discrimination affect your experiences and satisfaction with home repair?

HYPOTHESIS

I believe that discrimination affects the quality of service and price that homeowners receive, and their satisfaction with the work done.

EXPERIMENT METHODS

Interviews

Collect some qualitative interviews on the topic.

Research

Are there existing studies on the topic or of similar topics?

Survey

collect demographics, gender, race, age, sexual orientation, neighborhood, education, income, measure price, quality of workmanship and satisfaction of homeowners,

NOTES

Figure out how to frame this with quantitative data

Eg - black inner city gets higher quotes than white suburbs 26% of the time.

CONCLUSION

Sample size was too small to make meaningful insights for most vectors of discrimination. Age and gender showed the most interesting results, but further studies would have to be conducted to understand the reasons behind the results. Overall, a larger study would have to be conducted to make more conclusions.

RESEARCH RESULTS

This study focuses on - should businesses hire employees to match their customer demographics?

<http://faculty.haas.berkeley.edu/levine/papers/Custom%20Discrimination,%20REStat.pdf>

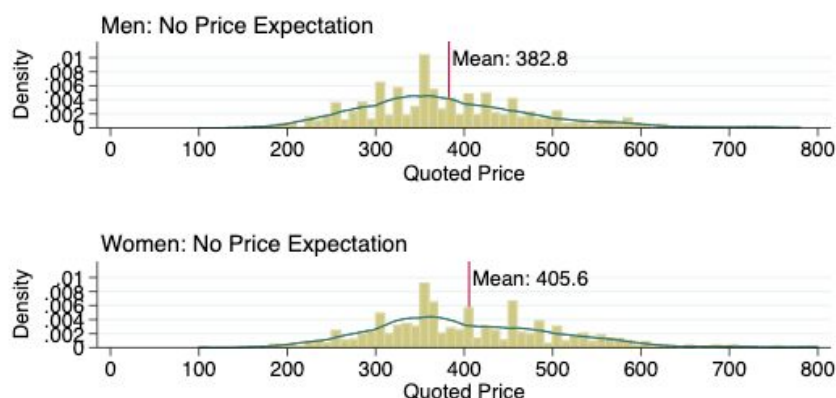
In this sector, most customers are not very sensitive to the race of the employees who serve them. Sales do fall in white communities when black employment shares rise, and sales do increase with rising Hispanic employment shares, but both effects are small. **These results do not generally support the claim that employee racial composition is important because customers have strong preferences to be served by those of the same race.** This result is important because many employers in this sector appear to hire based on fears of such customer discrimination (Moss & Tilly, 2001). We find little payoff to matching employee demographics to those of potential customers except when the customers do not speak English. Asian immigrants who do not speak English apparently buy more from those of similar back-ground. But this linguistic isolation is the (fairly rare) situation most favorable to the segregation model.

This article summarizes the findings of a research study

<https://www.theatlantic.com/business/archive/2013/06/the-price-is-racist-when-minorities-and-women-are-asked-to-pay-more/277174/>

This survey of new-car dealerships revealed that merchants quoted lower prices to white males than to black (or female) test buyers. "In negotiations for more than 300 new cars, Chicago car dealers **offered black and female testers significantly higher prices than the white males**" even with identical bargaining strategies, they found. However, **gender differences disappear when callers mention an expected price for the repair.**

Figure 2: Distribution of price quotes by condition and gender



From the quoted study <https://www.nber.org/papers/w19154.pdf>

This study covers discrimination in a retail setting:

<https://pdfs.semanticscholar.org/6df1/96b2f91984b6ab4fd3dbe9ddf18a8e388848.pdf>

SURVEY RESULTS

By Gender

While women reported higher levels of “respect” they displayed slightly lower levels of satisfaction with the quality, price, customer service and timeliness of the work done for them. This suggests that women might be treated more “politely” but receive lower levels of service. Further investigation would be required.

| <input type="checkbox"/> | | ID | ★ Respect Level | ★ Intensity of Emotion | ★ Quality Satisfaction | ★ Price Fairness... | ★ Customer Servic... | ★ Timeliness ... | ★ Overall Satis... |
|--------------------------|--|-----------------|-----------------|------------------------|------------------------|---------------------|----------------------|------------------|--------------------|
| GENDER | | | | | | | | | |
| ▶ | | Male Count 55 | ▼ Avg 3.67 | ▼ Avg 3.29 | ▼ Avg 3.8 | ▼ Avg 3.71 | ▼ Avg 3.85 | ▼ Avg 3.71 | ▼ Avg 3.78 |
| ▶ | | Female Count 69 | ▼ Avg 3.86 | ▼ Avg 2.91 | ▼ Avg 3.77 | ▼ Avg 3.48 | ▼ Avg 3.59 | ▼ Avg 3.61 | ▼ Avg 3.7 |

By Age

Seniors reported the highest levels of “respect” and displayed the highest satisfaction with the quality, price, customer service and timeliness of the work done for them. This suggests that contractors are treating older customers with empathy and respect, rather than taking advantage of them, or alternatively, they are the easiest customers to please. Interestingly, the next oldest age bracket, 45 to 60, have the lowest levels of satisfaction across the board.

| <input type="checkbox"/> | | ID | ★ Respect Level | ★ Intensity of Emotion | ★ Quality Satisfaction | ★ Price Fairness... | ★ Customer Servic... | ★ Timeliness ... | ★ Overall Satis... |
|--------------------------|--|--------------------|-----------------|------------------------|------------------------|---------------------|----------------------|------------------|--------------------|
| ▶ | | AGE 18-29 Count 29 | ▼ Avg 3.69 | ▼ Avg 2.93 | ▼ Avg 3.83 | ▼ Avg 3.62 | ▼ Avg 3.62 | ▼ Avg 3.62 | ▼ Avg 3.66 |
| ▶ | | AGE 30-44 Count 33 | ▼ Avg 3.91 | ▼ Avg 3.42 | ▼ Avg 3.94 | ▼ Avg 3.76 | ▼ Avg 3.94 | ▼ Avg 3.94 | ▼ Avg 4 |
| ▶ | | AGE 45-60 Count 40 | ▼ Avg 3.55 | ▼ Avg 2.85 | ▼ Avg 3.45 | ▼ Avg 3.2 | ▼ Avg 3.38 | ▼ Avg 3.28 | ▼ Avg 3.35 |
| ▶ | | AGE 60+ Count 22 | ▼ Avg 4.09 | ▼ Avg 3.18 | ▼ Avg 4.09 | ▼ Avg 3.95 | ▼ Avg 4.05 | ▼ Avg 3.95 | ▼ Avg 4.14 |

By Knowledge Level

Knowledge Level appears to bear no influence on satisfaction or “respect” levels.

| <input type="checkbox"/> | | ID | ★ Respect Level | ★ Intensity of Emotion | ★ Quality Satisfaction | ★ Price Fairness... | ★ Customer Servic... | ★ Timeliness ... | ★ Overall Satis... |
|--------------------------|--|--------------------------------|-----------------|------------------------|------------------------|---------------------|----------------------|------------------|--------------------|
| ▶ | | KNOWLEDGE LEVEL ★ Count 1 | ▼ Avg 3 | ▼ Avg 2 | ▼ Avg 3 | ▼ Avg 4 | ▼ Avg 5 | ▼ Avg 4 | ▼ Avg 4 |
| ▶ | | KNOWLEDGE LEVEL ★★ Count 23 | ▼ Avg 3.83 | ▼ Avg 2.87 | ▼ Avg 3.61 | ▼ Avg 3.43 | ▼ Avg 3.57 | ▼ Avg 3.57 | ▼ Avg 3.61 |
| ▶ | | KNOWLEDGE LEVEL ★★★ Count 62 | ▼ Avg 3.71 | ▼ Avg 3.02 | ▼ Avg 3.85 | ▼ Avg 3.63 | ▼ Avg 3.69 | ▼ Avg 3.69 | ▼ Avg 3.71 |
| ▶ | | KNOWLEDGE LEVEL ★★★★ Count 19 | ▼ Avg 3.95 | ▼ Avg 3.16 | ▼ Avg 3.95 | ▼ Avg 3.42 | ▼ Avg 3.89 | ▼ Avg 3.74 | ▼ Avg 3.84 |
| ▶ | | KNOWLEDGE LEVEL ★★★★★ Count 19 | ▼ Avg 3.79 | ▼ Avg 3.53 | ▼ Avg 3.63 | ▼ Avg 3.74 | ▼ Avg 3.68 | ▼ Avg 3.53 | ▼ Avg 3.84 |

By Income

By Income, we can see a loose correlation between income level and respect, as well as income level and satisfaction. A larger study sample would be necessary to see if this is true.

| ☐ | ≡ | A | ID | ★ Respect Level | ★ Intensity of Emotion | ★ Quality Satisfaction | ★ Price Fairness... | ★ Customer Servic... | ★ Timeliness ... | ★ Overall Satis... |
|---|---|---|---|-----------------|------------------------|------------------------|---------------------|----------------------|------------------|--------------------|
| ▶ | | | HOUSEHOLD INCOME (Empty) Count 10 | ▼ Avg 4 | ▼ Avg 3 | ▼ Avg 3.9 | ▼ Avg 3.3 | ▼ Avg 3.67 | ▼ Avg 3.7 | ▼ Avg 3.6 |
| ▶ | | | HOUSEHOLD INCOME \$0-\$9,999 Count 3 | ▼ Avg 3.67 | ▼ Avg 2.67 | ▼ Avg 5 | ▼ Avg 4.33 | ▼ Avg 4 | ▼ Avg 3.67 | ▼ Avg 3.67 |
| ▶ | | | HOUSEHOLD INCOME \$10,000-\$24,999 Count 11 | ▼ Avg 3 | ▼ Avg 2.73 | ▼ Avg 3.64 | ▼ Avg 3.36 | ▼ Avg 3.64 | ▼ Avg 3.73 | ▼ Avg 3.55 |
| ▶ | | | HOUSEHOLD INCOME \$25,000-\$49,999 Count 23 | ▼ Avg 3.48 | ▼ Avg 2.87 | ▼ Avg 3.65 | ▼ Avg 3.17 | ▼ Avg 3.39 | ▼ Avg 3.22 | ▼ Avg 3.57 |
| ▶ | | | HOUSEHOLD INCOME \$50,000-\$74,999 Count 22 | ▼ Avg 3.55 | ▼ Avg 3.14 | ▼ Avg 3.68 | ▼ Avg 3.86 | ▼ Avg 3.82 | ▼ Avg 3.77 | ▼ Avg 3.82 |
| ▶ | | | HOUSEHOLD INCOME \$75,000-\$99,999 Count 21 | ▼ Avg 4.1 | ▼ Avg 3.14 | ▼ Avg 3.86 | ▼ Avg 3.52 | ▼ Avg 3.76 | ▼ Avg 3.95 | ▼ Avg 3.76 |
| ▶ | | | HOUSEHOLD INCOME \$100,000-\$124,999 Count 15 | ▼ Avg 3.73 | ▼ Avg 3.2 | ▼ Avg 3.4 | ▼ Avg 3.2 | ▼ Avg 3.4 | ▼ Avg 3.27 | ▼ Avg 3.4 |
| ▶ | | | HOUSEHOLD INCOME \$125,000-\$149,999 Count 8 | ▼ Avg 4.38 | ▼ Avg 3 | ▼ Avg 3.63 | ▼ Avg 4.13 | ▼ Avg 3.75 | ▼ Avg 3.88 | ▼ Avg 4.13 |
| ▶ | | | HOUSEHOLD INCOME \$150,000-\$174,999 Count 2 | ▼ Avg 5 | ▼ Avg 3.5 | ▼ Avg 4.5 | ▼ Avg 4.5 | ▼ Avg 4.5 | ▼ Avg 4.5 | ▼ Avg 4.5 |
| ▶ | | | HOUSEHOLD INCOME \$175,000-\$199,999 Count 5 | ▼ Avg 4.6 | ▼ Avg 3.8 | ▼ Avg 4.8 | ▼ Avg 4.6 | ▼ Avg 4.8 | ▼ Avg 4.4 | ▼ Avg 4.8 |
| ▶ | | | HOUSEHOLD INCOME \$200,000+ Count 4 | ▼ Avg 4 | ▼ Avg 3.75 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 3.25 | ▼ Avg 3.75 |

By Race/Ethnicity

The sample sizes were too small to make any assumptions

| ☐ | ≡ | A | ID | ★ Respect Level | ★ Intensity of Emotion | ★ Quality Satisfaction | ★ Price Fairness... | ★ Customer Servic... | ★ Timeliness ... | ★ Overall Satis... |
|---|---|---|--|-----------------|------------------------|------------------------|---------------------|----------------------|------------------|--------------------|
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? White or Caucasian Count 92 | ▼ Avg 3.85 | ▼ Avg 3.03 | ▼ Avg 3.77 | ▼ Avg 3.63 | ▼ Avg 3.8 | ▼ Avg 3.65 | ▼ Avg 3.8 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? White or Caucasian Black or African American Asian or Asian American Count 1 | ▼ Avg 4 | ▼ Avg 3 | ▼ Avg 4 | ▼ Avg 2 | ▼ Avg 2 | ▼ Avg 2 | ▼ Avg 3 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? White or Caucasian Black or African American American Indian or Alaska Native Count 1 | ▼ Avg 3 | ▼ Avg 1 | ▼ Avg 5 | ▼ Avg 4 | ▼ Avg 3 | ▼ Avg 3 | ▼ Avg 3 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? White or Caucasian Hispanic or Latino Count 3 | ▼ Avg 3.33 | ▼ Avg 3 | ▼ Avg 3.33 | ▼ Avg 3 | ▼ Avg 2.33 | ▼ Avg 3 | ▼ Avg 3 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? White or Caucasian Another race Count 1 | ▼ Avg 1 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 4 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? Black or African American Count 6 | ▼ Avg 3.67 | ▼ Avg 2.5 | ▼ Avg 3.83 | ▼ Avg 3.17 | ▼ Avg 3.67 | ▼ Avg 3.83 | ▼ Avg 3.5 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? Black or African American Hispanic or Latino Another race Count 1 | ▼ Avg 5 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 2 | ▼ Avg 4 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? Hispanic or Latino Count 7 | ▼ Avg 4.14 | ▼ Avg 3.57 | ▼ Avg 4.29 | ▼ Avg 3.71 | ▼ Avg 3.71 | ▼ Avg 3.86 | ▼ Avg 3.86 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? Asian or Asian American Count 8 | ▼ Avg 3.88 | ▼ Avg 3.25 | ▼ Avg 3.75 | ▼ Avg 4.13 | ▼ Avg 3.75 | ▼ Avg 4.13 | ▼ Avg 4 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? Native Hawaiian or other Pacific Islander Another race Count 1 | ▼ Avg 1 | ▼ Avg 3 | ▼ Avg 3 | ▼ Avg 3 | ▼ Avg 4 | ▼ Avg 4 | ▼ Avg 2 |
| ▶ | | | WHAT IS YOUR RACE/ETHNICITY? Another race Count 3 | ▼ Avg 2.67 | ▼ Avg 4.33 | ▼ Avg 3 | ▼ Avg 2 | ▼ Avg 2.67 | ▼ Avg 3.33 | ▼ Avg 2.67 |

By Home Age

There are some interesting differences between the satisfaction levels of homeowners based on the age of their home, but a larger study would have to be conducted to make inferences.

| ID | Respect Level | Intensity of Emotion | Quality Satisfaction | Price Fairness... | Customer Servic... | Timeliness ... | Overall Satis... |
|---|---------------|----------------------|----------------------|-------------------|--------------------|----------------|------------------|
| WHEN WAS YOUR HOME BUILT Before 1920 Count 4 | Avg 4.25 | Avg 3 | Avg 4.25 | Avg 4.25 | Avg 3.75 | Avg 3.5 | Avg 3.75 |
| WHEN WAS YOUR HOME BUILT 1920 to 1945 Count 7 | Avg 3.14 | Avg 3.43 | Avg 3.71 | Avg 3 | Avg 3.57 | Avg 2.86 | Avg 3.14 |
| WHEN WAS YOUR HOME BUILT 1946 to 1965 Count 23 | Avg 3.48 | Avg 2.83 | Avg 3.65 | Avg 3.43 | Avg 3.43 | Avg 3.52 | Avg 3.52 |
| WHEN WAS YOUR HOME BUILT 1966 to 1989 Count 42 | Avg 3.98 | Avg 3.24 | Avg 3.98 | Avg 3.71 | Avg 4 | Avg 4.02 | Avg 4.05 |
| WHEN WAS YOUR HOME BUILT 1990 to 2009 Count 33 | Avg 3.88 | Avg 2.88 | Avg 3.58 | Avg 3.48 | Avg 3.44 | Avg 3.36 | Avg 3.58 |
| WHEN WAS YOUR HOME BUILT 2010 to 2020 Count 15 | Avg 3.6 | Avg 3.33 | Avg 3.8 | Avg 3.73 | Avg 3.93 | Avg 3.87 | Avg 3.8 |

By Region

Region doesn't appear to have significant influence over satisfaction levels or "respect." The Pacific region does report higher levels of satisfaction and respect than anywhere else.

| ID | Respect Level | Intensity of Emotion | Quality Satisfaction | Price Fairness... | Customer Servic... | Timeliness ... | Overall Satis... |
|---------------------------------------|---------------|----------------------|----------------------|-------------------|--------------------|----------------|------------------|
| REGION New England Count 7 | Avg 3.86 | Avg 3.14 | Avg 4.43 | Avg 4.43 | Avg 4.43 | Avg 4.43 | Avg 4.57 |
| REGION Middle Atlantic Count 11 | Avg 3.82 | Avg 3.45 | Avg 3.55 | Avg 3.64 | Avg 3.27 | Avg 3.36 | Avg 3.64 |
| REGION South Atlantic Count 34 | Avg 3.59 | Avg 3 | Avg 3.79 | Avg 3.53 | Avg 3.68 | Avg 3.5 | Avg 3.68 |
| REGION East South Central Count 6 | Avg 3.33 | Avg 2.67 | Avg 3.17 | Avg 3.17 | Avg 3.5 | Avg 2.83 | Avg 3.33 |
| REGION East North Central Count 19 | Avg 3.84 | Avg 2.84 | Avg 3.79 | Avg 3.63 | Avg 3.89 | Avg 3.95 | Avg 3.84 |
| REGION West North Central Count 10 | Avg 4.3 | Avg 3.7 | Avg 4.2 | Avg 3.6 | Avg 4.1 | Avg 4.3 | Avg 3.9 |
| REGION West South Central Count 10 | Avg 3.6 | Avg 2.8 | Avg 3.4 | Avg 2.9 | Avg 2.7 | Avg 2.9 | Avg 3.1 |
| REGION Mountain Count 11 | Avg 3.64 | Avg 2.91 | Avg 3.91 | Avg 3.82 | Avg 3.9 | Avg 3.73 | Avg 3.73 |
| REGION Pacific Count 16 | Avg 4.06 | Avg 3.31 | Avg 3.75 | Avg 3.63 | Avg 3.88 | Avg 3.81 | Avg 3.88 |