

NOTE: This was originally presented as the culmination and final project for the class MGMT 290 at Purdue University in November 2020 by Haris Hasan and Arman Alluri.

Parts 1 & 2

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Presenting high-level statistics on how COVID-19 has impacted American businesses and households while simultaneously showing the steps we took in our analysis

The relationship between Total Revenue and Rehiring

- At lower revenue levels, is there a big difference between different sectors
- At higher revenue levels, does the pattern change?
- By looking at one sector, does the rehiring rate change drastically as more revenue is coming in?

Collection Dates: 10/4 to 10/12 ▾

Comparison

Type:

By Sector ▾

Compare:

Rehiring employees ▾

Yes ▾

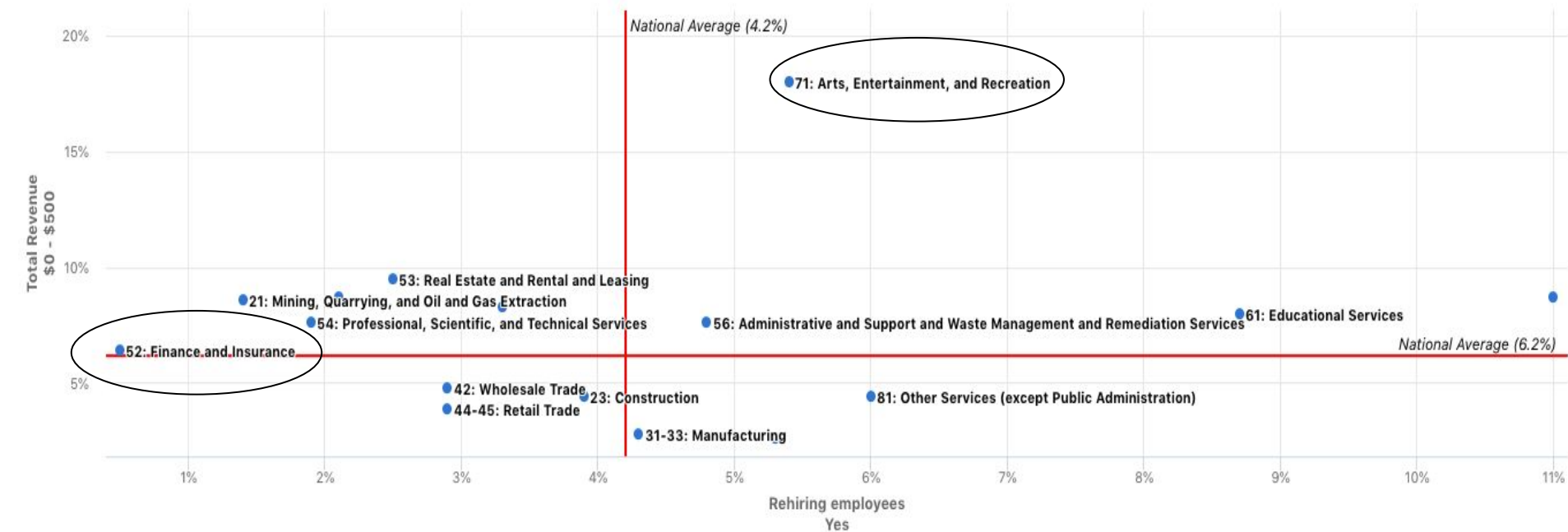
Compare:

Total Revenue ▾

\$0 - \$500 ▾

Rehiring employees vs Total Revenue

Data Collected 10/04 to 10/12



Collection Dates: 10/4 to 10/12 ▾

Comparison

By Sector ▾

Type:

Compare:

Rehiring employees ▾

Yes ▾

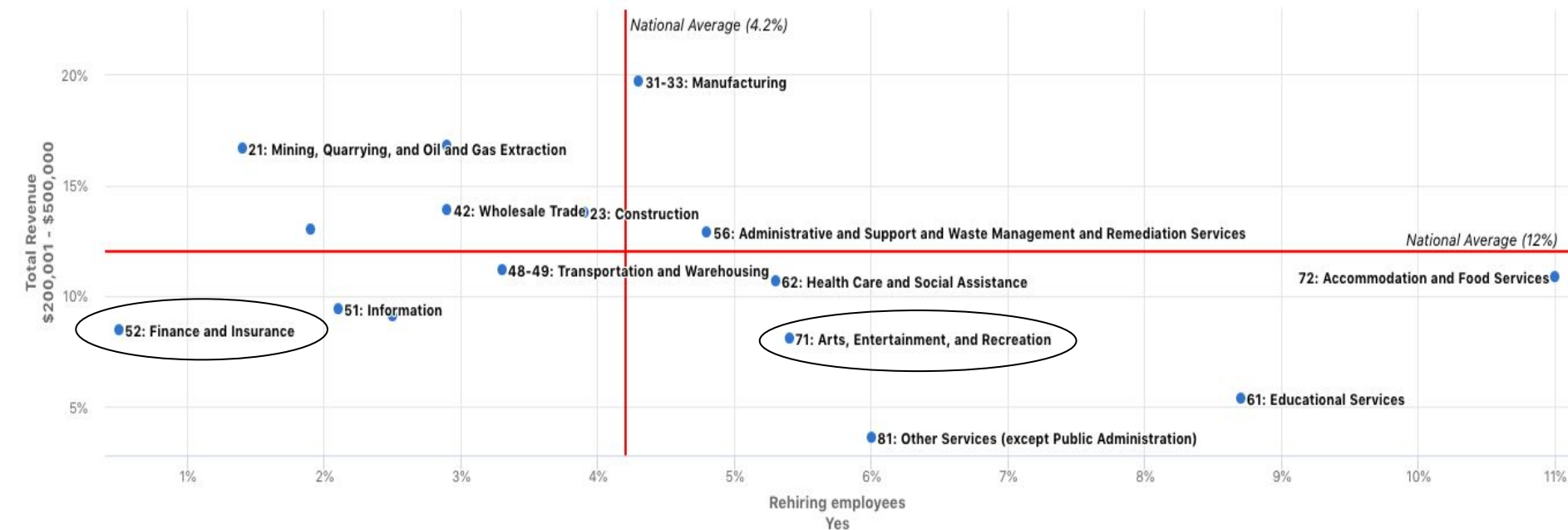
Compare:

Total Revenue ▾

\$200,001 - \$500,000 ▾

Rehiring employees vs Total Revenue

Data Collected 10/04 to 10/12



The COVID impact on Rehiring within American Businesses

- Lower revenue levels(0-500,000)
 - 1) Arts and entertainment benefit greatly from rehiring
 - 2) No incentive for finance to rehire lots of people
- Higher revenue levels(200-500,000)
 - 1) Rehiring rate stays the same, revenue contribution increases slightly for finance
 - 2) Revenue contribution decreases for arts and entertainment

The Decrease in the Number of Paid Employees

9.6% of the businesses surveyed nationwide reported a decrease in the number of paid employees.

The highest response average of 17.2% was from the Accommodation and Food Services sector.

The lowest response average of 4.1% was from the Finance and Insurance sector.

(As per data collected in the week 10/4 to 10/12)

For both of these sectors, is there any correlation with this decrease in the number of paid employees and a change in revenue?

Comparing the Decrease in the Number of Paid Employees with a Change in Revenue

Accommodation and Food Services:

42.9% of the survey response was that **revenues decreased** (compared to the 29.9% national average).

This is **far higher than national average**

Finance and Insurance:

20.5% of the survey response was that revenues decreased (compared to the 29.9% national average) - Lower than national average

73.5% of the survey response was that **revenues did not change** (compared to the 61.7% national average)

This is **higher than national average**

Thus it can be deduced that the following exists for these examples:

A decrease in the number of paid employees correlates with decreased revenues.

This insight can help identify which sectors would be looking to rehire the most. It can be said that if they experienced decreased revenues currently, they may have been forced to layoff employees. By extension, these same sectors may be looking to rehire.

Part 3



Presenting the business and investment opportunity that we found
in the data

Hypothesis:

1. Economy stabilises, companies return to their pre-pandemic revenues
2. Same companies then mass-hire employees to fill these vacancies.

Hence, investment into hiring technologies may be extremely profitable as they allow companies to adapt to the COVID-19 environment.

Hiring Technology Example



2 chatbots: “Wendy,” who handles recruiting, and “Wade,” who offers timely career advice.

Wendy

- Identifies prospective candidates
- The conversational AI coordinates next steps with would-be employees such as interviews, etc.
- Supplies information about the organization, and extracts and relevant details about them for hirers.
- Each interaction helps to improve the underlying algorithms, improving the quality of future matches.
- Performs the repetitive, manual aspects of recruiting.

Wade

Targets job candidates and employees with “tailored guidance” and feedback, drawing on a proprietary knowledge base of tech startups and Fortune 500 companies.

Part 4

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Justifying the investment Opportunity

Benefits of Wade&Wendy:

Saves Time

About 30 hours saved for every 100 candidates per role

This leaves human recruiters to get on with what they're best at: strategic thinking, based on the best possible data, to find the most interested and qualified candidate.

Works in off hours

44 percent of all messages exchanged were in off-hours.

Better Outreach

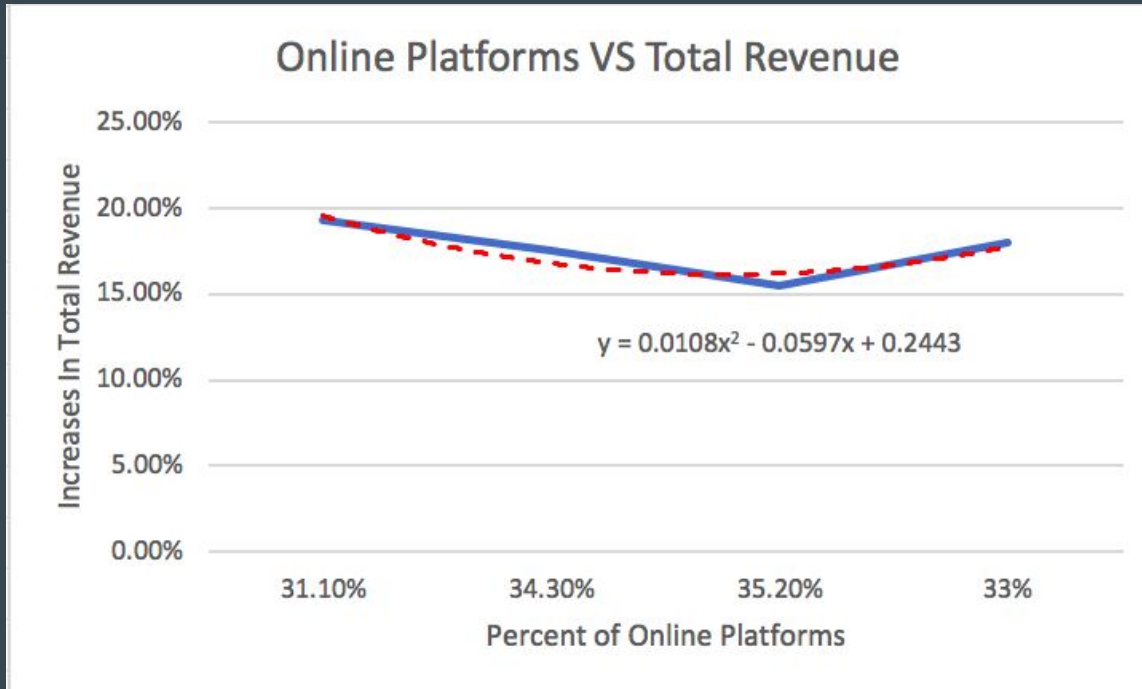
built-in email engine can increase outreach activity by a factor of ten and boost qualified talent pools by 20 percent, and that 80 percent of recommended talent receive an interview.

Saves Money:

In one use case, such a feat of recruiting would have required 16 full-time recruiters at an estimated cost of \$54,000.

Forecasting future Growth(using hiring technologies)

- Looking at data from 13th September 2020 to 12th October 2020(arts and entertainment)



- Closely resembles a parabolic relationship, there is a decline in the beginning due to the time and costs it takes to implement the software
- When adopting online means to rehire people, total revenues increase steadily
- Artificial platforms have the benefit of scalability so the process will continue to grow with minimal costs.
- More money can be reinvested for growth and innovation.

Part 5

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Recap and Conclusion