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H-1B Insights for Business Students Focusing on Finance & Analytics

The H-1B visa program is extensively used for highly skilled immigrants with CA, TX and NY leading the list of overall filed cases in 2021-2022 with 277K, 163K and 98K, respectively. In terms of compensation, employees in CA earn the highest average annual wage at $141K, followed by WA ($137K) and NY ($126K). Key jobs for business students include Financial Analyst, Management Analyst and Financial Specialist where average employee period for mentioned roles is roughly three years, suggesting stable job tenure. Within the top three states, students seeking Financial Analyst roles should target Bank of America and Google in CA and NY, for Financial Specialist roles, focus on JP Morgan in CA, Citibank in TX, or Goldman Sachs in NY. When seeking Management Analyst roles, individuals should consider positions in TX, especially at BCG and PwC, or Microsoft in CA.

Among the top 10 states with the highest application submissions, 97.9% received certification within an average of seven days. However, 4.5% of certified applications were withdrawn, while withdrawal before processing usually happens within 1-2 days. About 0.3% faced denial within an average of three days. These numbers remain fairly consistent across states.

Delving deeper into employer data reveals that the majority of applications, 50.5% of the total, are in the "Professional, Scientific, and Technical Services" industry, surpassing the "Manufacturing" sector by almost five times. Meanwhile, the industries "Other Information Services" (Reddit and Facebook) and "Department Stores" like Macy's and Kohl's offer the highest average wages while making up only 2.3% and 0.7% of total applications, respectively.

The Standard Occupational Classification (SOC) System classifies employees into occupational categories. "Computer and Mathematical Occupations" account for the most applications and positions in "Legal and Healthcare" earn the highest compensation. However, for business students with finance and analytics as their majors, their entry-level jobs will likely fall within the "Business and Financial Operations Occupations" with 70K cases, 7.5% of total applications, ranking third by number of applications.

Within this category, most cases get filed for the following SOC titles: Financial Analysts, Accountants and Auditors, Management Analysts, Financial Specialists, and Market Research Analysts and Marketing Specialists, suggesting demand for these roles. Specifically, Financial Analysts, Management Analysts, and Financial Specialists are preferred based on compensation, with average annual wages of $132K, $126K, and $123K, respectively.

Examining top employers for financial roles, Ernest & Young and Goldman Sachs lead in applications for Financial Analysts and Financial Specialists. Financial Analysts can expect the highest compensation from Bank of America ($186K), followed by Goldman Sachs ($152K) and Google ($150K). Financial Specialists can anticipate the highest from Citigroup ($153K), JP Morgan ($148K), and both Citibank and Goldman Sachs (both $128K).

For Management Analysts, McKinsey, BCG, and Microsoft top the list based on certified H-1B cases. For students prioritizing high compensation, PwC and BCG emerge as the most attractive employers with an expected salary of approximately $168K, with McKinsey and Microsoft slightly behind at $150K.

As a final recommendation, considering the top three states (CA, TX, and NY), key employers for desired job titles identified above, and compensation benchmarked using the Big Mac index published by *'The Economist'* to account for purchasing power between states, students seeking Financial Analyst roles should target positions at Bank of America and Google in CA and NY. Those aiming for Financial Specialist roles should focus on JP Morgan in CA, Citibank in TX, or Goldman Sachs in NY. While Ernest & Young is likely to offer visa sponsorship, its compensation for this role falls below the average of the top 10 employers in nine out of ten states, making it less attractive. Employers filing less than 10 applications in a given state were not considered as part of the analysis.

For Management Analyst roles, positions in TX, especially at BCG and PwC, are recommended, while Microsoft provides the most attractive compensation for students seeking a role in CA. For students aiming for a Management Analyst role at McKinsey, considering locations outside the top three states, specifically GA and NC, based on compensation is advised. Recommendations of roles and wages across states are summarized in Appendix C including alternative options based on compensation.

References

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Appendix

Appendix A
SQL Server Log-In

host: mban-sql.mysql.database.azure.com
user: xxxx
p: xxxx

Appendix B
SQL Analysis

```sql
-- allocation percentage per case_staus
        SELECT
  (SUM(CASE
    WHEN case_status = 'Certified' THEN 1
    ELSE 0
  END) * 100.0) / COUNT(*) AS percentage_of_certified,
  (SUM(CASE
    WHEN case_status = 'Certified - Withdrawn' THEN 1
    ELSE 0
  END) * 100.0) / COUNT(*) AS percentage_of_certified_withdrawn,
  (SUM(CASE
    WHEN case_status = 'Withdrawn' THEN 1
    ELSE 0
  END) * 100.0) / COUNT(*) AS percentage_of_withdrawn,
  (SUM(CASE
    WHEN case_status = 'Denied' THEN 1
    ELSE 0
  END) * 100.0) / COUNT(*) AS status_percentage_of_denied
FROM
  `case`;

-- minimum and average number of days to administrate a case.
SELECT
  AVG(TIMESTAMPDIFF(DAY,
    received_date,
    decision_date)) AS average_waiting_period_in_days,
  MIN(TIMESTAMPDIFF(DAY,
    received_date,
    decision_date)) AS minimum_waiting_period_in_days,
  case_status,
  worksite_state
FROM
  all_data
GROUP BY case_status , worksite_state
ORDER BY case_status;

-- States with highest average wage
SELECT
  AVG(wage) AS average_wage, worksite_state
FROM
  all_data
```

```sql
GROUP BY worksite_state
ORDER BY average_wage DESC;

-- Top 3 industries by wage
SELECT
    AVG(wage) AS average_wage, industry, employer_name
FROM
    h1b.all_data
WHERE
    industry IN ('Other Information Services' , 'Department Stores')
GROUP BY industry , employer_name
ORDER BY average_wage DESC;

-- Top 3 industries by cases
SELECT
    industry, COUNT(case_id) AS cases, AVG(wage) AS average_wage
FROM
    h1b.all_data
WHERE
    case_status IN ('Certified' , 'Certified - Withdrawn')
GROUP BY industry
ORDER BY cases DESC;

-- average wage, soc title per department stores
SELECT
    AVG(wage) AS average_wage, soc_title, industry
FROM
    all_data
WHERE
    industry = ('Department Stores')
GROUP BY soc_title
ORDER BY average_wage DESC;

-- count number of applications, regardless of status
SELECT
    COUNT(case_id) AS total_applications
FROM
    all_data;

-- Top SOC titles by job category (113) and its average salary
SELECT
    soc_title,
    COUNT(case_id) AS status_certified,
    AVG(wage) AS average_wage
FROM
    all_data
WHERE
    category_title = ('Business and Financial Operations Occupations')
        AND case_status IN ('Certified' , 'Certified - Withdrawn')
GROUP BY soc_title
ORDER BY COUNT(c.case_id) DESC;

-- average employee period in days for Fin / Mngt Analyst & Fin Specialist
```

```sql
SELECT
    soc_title,
    AVG(TIMESTAMPDIFF(DAY,
        begin_date,
        ending_date)) AS average_employee_period_days
FROM
    all_data
WHERE
    case_status IN ('Certified' , 'Certified - Withdrawn')
        AND soc_title IN ('Financial Analysts' , 'Financial Specialists, All Other',
        'Management Analysts')
GROUP BY soc_title;

-- Top Employers by SOC Title
SELECT
    *
FROM
    h1b.management_analyst_top_10_cases
LIMIT 3;

SELECT
    *
FROM
    h1b.financial_specilist_all_other_top_10_cases
LIMIT 3;

SELECT
    *
FROM
    h1b.financial_analyst_top_10_cases
LIMIT 3;

-- Top status count per industry, and its average wage
SELECT
    COUNT(case_id) AS approved_cases,
    industry,
    AVG(wage) AS average_wage
FROM
    all_data
GROUP BY industry
ORDER BY approved_cases DESC
LIMIT 20;
```

Appendix C
Job Title Allocation Across Top 3 States

State	Employer	Job Title	Wage ($)	Normalized Wage ($)*
NY	Bank of America	Financial Analyst	185,219	169,150
	Google	Financial Analyst	165,319	150,976
	Goldman Sachs	Financial Specialist	159,944	146,068
	Boston Consulting Group	*Management Analyst*	*160,939*	*146,977*
	Microsoft	*Management Analyst*	*158,462*	*144,714*
CA	Bank of America	Financial Analyst	198,404	177,464
	JP Morgan	*Financial Analyst*	*181,417*	*162,269*
	Google	Financial Analyst	162,512	145,359
	JP Morgan	Financial Specialist	181,417	162,269
	Microsoft	Management Analyst	167,477	149,800
TX	*Google*	*Financial Analyst*	*134,299*	*136,344*
	Citibank	Financial Specialist	137,318	139,409
	BCG	Management Analyst	169,944	172,531
	PwC	Management Analyst	145,232	147,444
WA	*Goldman Sachs*	*Financial Analyst*	*174,818*	*160,531*
	Goldman Sachs	*Financial Specialist*	*174,818*	*160,531*
	Microsoft Corporation	*Management Analyst*	*149,867*	*137,619*

Normalized Wage calculated by dividing average wage by PPP multiplier (NY: 1.095, CA: 1.118, TX: 0.985, WA: 1.089)

Note: Employers in italics are alternative options; for eg: Google in TX to give reccomendation of Financial Analyst with Location as a priority despite lower compensation