College Food Choices Case Study

Data Analytics With Tableau

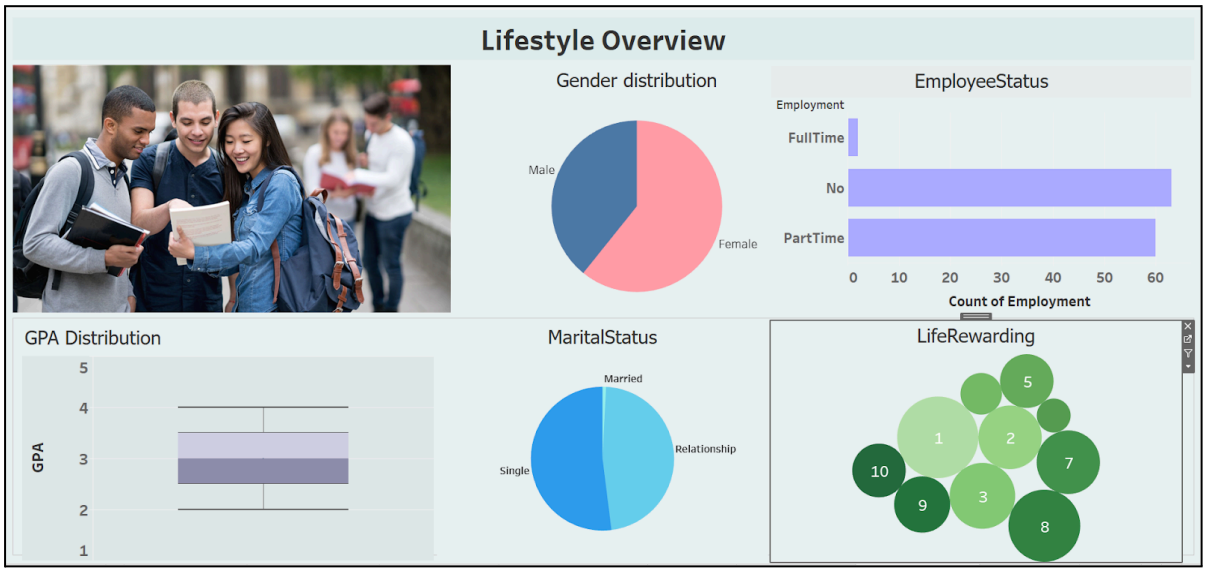
Introduction

The transition to college life represents a pivotal shift in dietary autonomy. For many students, this period is characterized by the "first-time" responsibility of managing nutritional intake amidst academic stress, budget constraints, and the ubiquitous availability of processed foods. Understanding these patterns is not just about tracking calories; it is about uncovering the socioeconomic and psychological drivers behind student wellness.

Project Overview

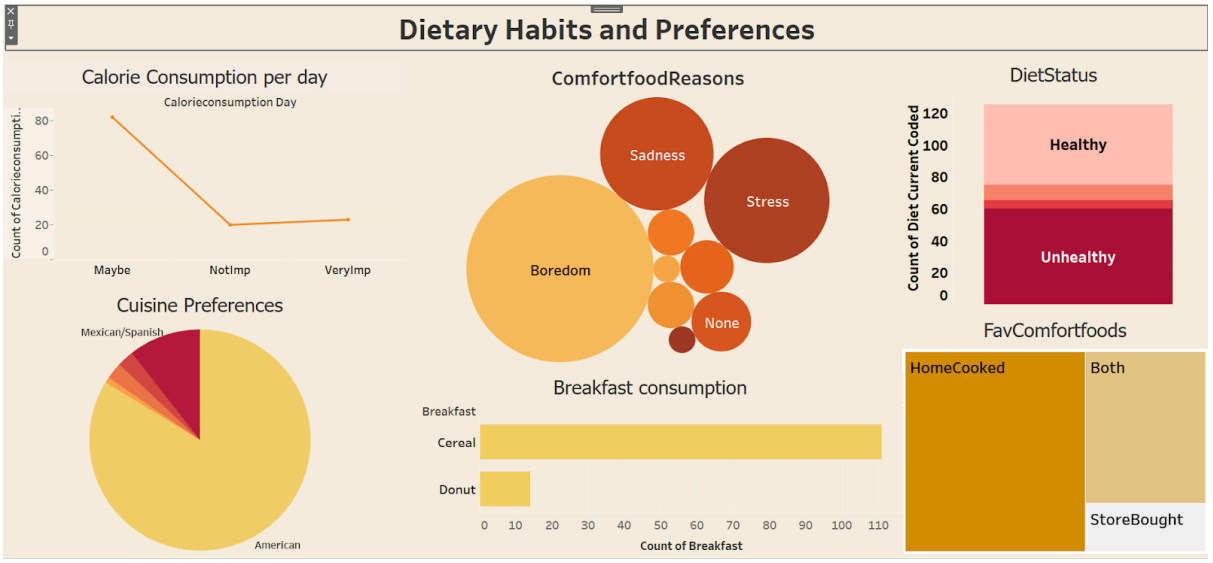
This case study, "Comprehensive Analysis and Dietary Strategies with Tableau," leverages data analytics to dissect the factors influencing food choices across a diverse college demographic. By integrating disparate data points—ranging from meal plan preferences and late-night snacking habits to the impact of food costs—this project aims to visualize the "why" behind the "what" on a student's plate.

Life Style Overview



Demographic Balance: The student population shows a slightly higher proportion of females compared to males.
Employment Trends: A significant majority of students are either unemployed or working part-time, with very few maintaining full-time employment.
Academic Performance: The GPA distribution is centered around a 3.0 median, with most students falling between the 2.5 and 3.5 range.
Social Status: The marital status chart indicates a near-even split between students who are single and those in a relationship.
Life Satisfaction: The "LifeRewarding" bubble chart suggests a diverse range of responses, with varying levels of perceived life fulfillment among the group.
Data Integration: By combining these lifestyle factors, the dashboard provides a holistic view of the external pressures—like work and relationships—that likely influence dietary choices.

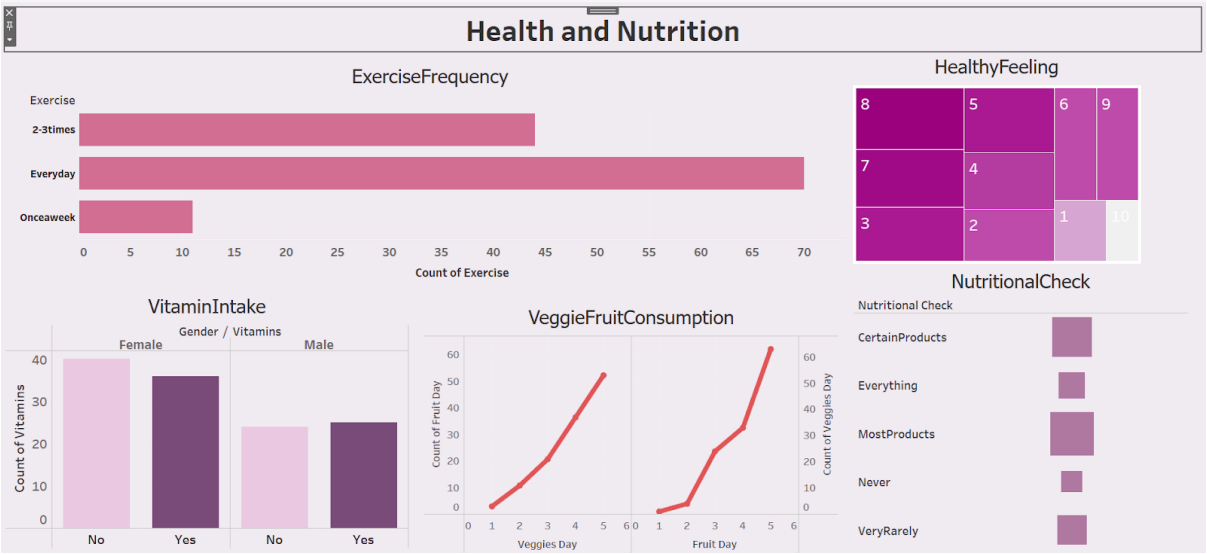
Dietary Habits and Preferences



Nutritional Awareness: A large segment of students is uncertain about their daily calorie intake, as indicated by the high "Maybe" response count.
Emotional Triggers: Boredom, sadness, and stress are the primary psychological drivers leading students toward comfort food.
Dietary Self-Assessment: A significant portion of the surveyed population labels their current eating habits as "Unhealthy."

Cuisine Dominance: American cuisine is the overwhelming favorite among students, far outpacing other ethnic food preferences.
Morning Routines: Cereal is the dominant breakfast choice, showing much higher consumption rates compared to options like donuts.
Food Sourcing: Students show a strong preference for home-cooked comfort foods over store-bought alternatives.
Actionable Data: This visualization highlights a clear link between emotional well-being and nutritional choices on campus.

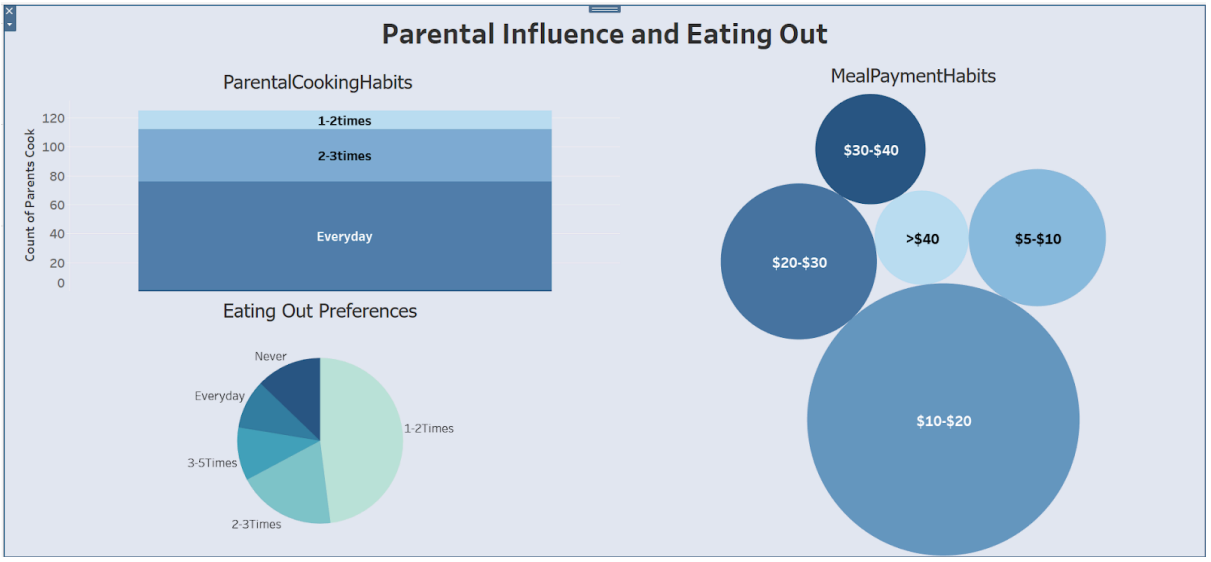
Health and Nutrition



Physical Activity: A significant majority of students engage in exercise "Everyday" or at least "2-3 times" a week.
Produce Intake: There is a strong upward trend in daily fruit and vegetable consumption, with the highest count of students consuming them five times a day.
Subjective Wellness: The "HealthyFeeling" treemap shows that many students rate their sense of health at high levels, specifically 7 and 8.
Vitamin Use: Vitamin intake varies by gender, with a higher number of females reporting they do not take vitamins compared to those who do.
Nutritional Literacy: Most students perform a "Nutritional Check" on at least "Most Products" before consumption.
Comparison: Despite the "Unhealthy" dietary self-labels seen in other data, these metrics suggest a high level of physical engagement.
Health Awareness: The data indicates that students are generally conscious of what they eat, even if their choices aren't always optimal.

Gender Trends: Male students show a nearly equal split between those who take vitamins and those who do not.
Consistent Habits: Very few students report exercising only "Once a week," suggesting a committed fitness culture.
Analytical Value: This dashboard highlights the gap between active lifestyles and nutritional awareness in the college population.

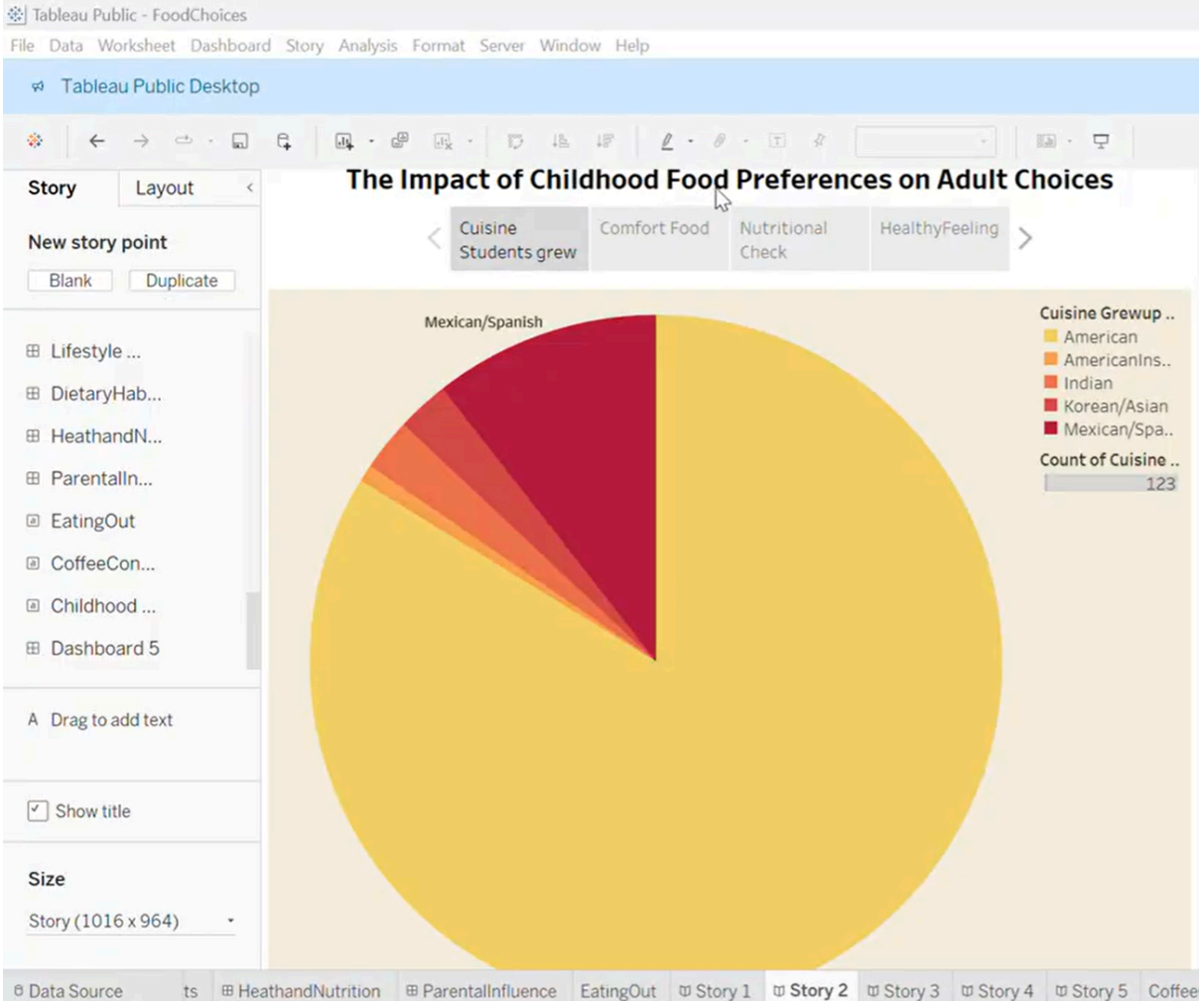
Parental Influence and Eating Out



Parental Role Models: A vast majority of students come from households where parents cook "Everyday," establishing a strong foundation for home-cooked preferences.
Eating Out Frequency: Most students limit dining out to "1-2 times" per week, suggesting a balance between social outings and home dining.
Meal Spending: The primary spending bracket for meals falls between $10-$20, indicating a budget-conscious demographic.
High-End Dining: Spending more than $40 on a meal is the least common habit, representing a small fraction of the student population.
Economic Trends: Moderate spending ($20-$30) and low-cost options ($5-$10) show similar prevalence, reflecting varied financial flexibility.
Daily Dining Out: Only a tiny segment of students eats out "Everyday," aligning with the high frequency of parental home cooking.
Influence of Upbringing: The data suggests a correlation between consistent parental cooking and a student's tendency to avoid excessive eating out.
Financial Impact: The $10-$20 range dominates the bubble chart, marking it as the critical price point for student-targeted food services.

Lifestyle Consistency: These habits reflect a demographic that prioritizes affordability and traditional dining structures.
Overall Insight: Parental habits and financial constraints act as the primary governors for student dining frequency and expenditure.

The Impact of Childhood Food Preferences on Adult Choices



Cultural Consistency: The data reveals a powerful link between the cuisine students grew up with and their current adult preferences.
American Cuisine Dominance: American food remains the primary choice for students, mirroring the high frequency of American cuisine they were exposed to in childhood.
Ethnic Influences: Substantial representation of Mexican/Spanish, Indian, and Korean/Asian cuisines in childhood data explains the diverse secondary preferences seen today.
Foundation of Habits: This visualization suggests that core dietary patterns are largely established at home before a student even enters college.

Storytelling with Data: By utilizing Tableau's "Story" feature, the project effectively maps the transition from childhood exposure to independent adult food choices.
Nostalgia and Comfort: The correlation suggests that "comfort foods" are often deeply rooted in these early cultural culinary experiences.
Predictive Insight: Understanding childhood backgrounds allows campus dining services to better predict and meet student demand for specific cuisines.
Holistic View: This final piece completes the narrative, moving from immediate lifestyle factors to the long-term history of the student's palate.