Milestone 4 – Final Paper

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Dataset: National Database of Childcare Prices (NDCP)

Summary of Analysis

The National Database of Childcare Prices (NDCP) provides detailed county-level data from 2008 to 2018 on weekly childcare costs across Family Child Care (FCC) and Child Care Centers (CCC). It includes costs by age group (Infant, Toddler, Preschool), percentile breakdowns, and additional metrics such as female unemployment rates. The analysis focused on identifying cost disparities across geography and time, and on examining how childcare affordability influences workforce participation, particularly for women.

Findings

Childcare costs have risen steadily over the decade, with CCC consistently more expensive than FCC. Infant care is the highest cost category across all states, often exceeding $200 per week. Regional disparities are stark, with urban and coastal counties facing the greatest burden. Preliminary analysis suggests a negative correlation between female labor force participation and childcare affordability, particularly in high-burden counties.

Assumptions

- Costs are weekly rates in USD and are not inflation-adjusted.
- Columns ending in _flag indicate data quality but do not alter the cost data itself.
- Median costs were chosen over percentile values for clarity and comparability.

Items that Still Need Clarification

- Official definitions of flag values (e.g., 1 vs. 3).
- Whether adjustments for inflation would change affordability trends.
- County-level income data needed to fully assess affordability ratios.

Direction of Story/Call to Action

The narrative highlights the growing economic burden of childcare, connecting high costs to barriers in workforce participation and economic equity. The message is a call to action: policymakers and advocates should prioritize public investment, cost caps, or subsidies to make childcare affordable for all families.

Target Audience

The primary audience includes state and local policymakers, workforce development boards, and advocacy groups. These stakeholders understand economic trends but may lack direct insight into childcare systems, so visual clarity and storytelling are essential.

Mediums Included

1. Interactive Dashboard: Allows policymakers to explore cost disparities across counties, provider types, and age groups, supported by line charts, bar charts, and planned affordability gauges.
2. Infographic: A one-page visual summary for legislative packets or public outreach, designed to highlight key statistics and human stories.
3. Short Video: A 60-second social media-friendly video that uses narrative and animation to emotionally engage a general audience.

Design Decisions

Colors were chosen to intuitively signal economic burden—warm tones (red/orange) highlight high costs, while cooler tones (blue/green) indicate lower costs. Layouts prioritize readability, with charts using clear labels, plain language, and simple legends. The dashboard includes filters (state, county, year, age group, provider type) to enhance interactivity and relevance. The infographic uses bold titles and iconography to engage visually, while the short video combines animated cost bubbles and a U.S. map to emphasize scale and urgency.

Ethical Considerations

The data originates from a credible government-backed dataset, ensuring high integrity. However, ethical issues arise from possible misinterpretation of visuals—e.g., maps may exaggerate disparities without proper context. To mitigate risks, all visuals include labels, data sources, and explanations of scope. No data has been filtered without acknowledgment, and cleaning steps (e.g., excluding flagged unreliable rows) are documented.

There are no major legal or regulatory constraints beyond ensuring proper citation and non-misrepresentation of data. The dataset was publicly acquired and verified for credibility through official documentation. Ethical implications, such as reinforcing stereotypes about certain regions, are mitigated by focusing on structural, not individual, factors.

Lessons Learned

This project reinforced the importance of storytelling in data communication. Building multiple mediums helped identify how different audiences engage with data—policy

experts prefer dashboards for detail, while the public responds better to infographics and videos.

If given more time, I would integrate inflation-adjusted costs and median household income data for a more robust affordability analysis. I also learned that crafting a compelling narrative often requires simplifying complex datasets without losing integrity.

What I enjoyed most was designing the visual elements, especially the infographic and dashboard mock-ups. They transformed raw numbers into a clear, persuasive narrative that highlights the urgent need for policy reform.