

Final Project Proposal

Exploring the Latino Labor Migration in Massachusetts



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Abstract

As of 2023, 13.1% of Massachusetts' total state population (~910,000 residents) is Hispanic. This growth has been substantially influenced by labor migration, notably since the 1960s, as many Latinos sought and recognized economic opportunities within the state. This data visualization contains graphs and other data visualization tools that display the population growth over time and the social and economic impact that Latinos have made, tracing their contributions and achievements from the 20th century to the present day.

Updated May 4, 2024

Description

Introduction

Massachusetts has witnessed significant population growth, with Hispanic/Latino individuals comprising 13.1% of the total state population as of 2023. The increased Latino labor migration has caused this growth in the last couple of decades. In the 1960s, waves of Latino migrants recognized and pursued economic opportunities within Massachusetts, contributing to the state's social and economic landscape. This data visualization aims to delve deeply into the story of Latino labor migration and its impact on Massachusetts, tracing the migration trajectory from the 20th century to today. With compelling data-driven insights and visualizations, we look forward to learning about the role Latinos have played in shaping Massachusetts' diverse identity.

Motivation

Coming from Venezuela of Chinese descent, I wanted to make a data visualization representing the Latino culture. While considering whether to focus on the impact of Asians or Latinos in Massachusetts, my background and experiences as a Venezuelan led me to choose to represent the contributions of Latinos, especially in the labor aspect in the United States. Growing up in Venezuela, I have a deep connection to the Latino culture, which is why I wanted to showcase the significant impact that Latinos have made in Massachusetts, as I live in Boston.

Project Plans

The main idea of this visualization is to show the socio-economic impact of the Latino labor migration in Massachusetts, and how its total state population growth changed throughout the 20th century to the present day. I want to see how each part of Massachusetts' population changed throughout the year with the interactive map visualization and learn more about the contributions of Hispanic workers in different sectors of society, whether that may be STEM-related roles, entrepreneurial jobs, healthcare, and many more. Also, I would like to see how Boston has changed, as it is one of the main cities for the workforce.

Datasets

1. Immigrants in Massachusetts:

<https://map.americanimmigrationcouncil.org/locations/massachusetts/>

This website shows data regarding immigrants in Massachusetts. This does not entail only Latinos, but other immigrants. I would like to show general details about the population, such as demographics between foreign-born and U.S.-born populations, data regarding the number of immigrant workers in the labor force, top occupations with the highest share of immigrant workers, the share of STEM workers who are immigrants, and many other in-depth details.

2. Hispanics and Latinos in Massachusetts:

https://en.wikipedia.org/wiki/Hispanics_and_Latinos_in_Massachusetts

Wikipedia gives us multiple sources regarding the percentage of Latino individuals in Massachusetts, by country of origin. From their table, I plan to create a bar graph to show the total population in Massachusetts per country of origin.

3. Hispanic Population in Massachusetts, by Country of Origin (2010-2022):

[https://data.census.gov/table/ACSST1Y2022.B03001?q=b03001&g=040XX00US25,25\\$1600000](https://data.census.gov/table/ACSST1Y2022.B03001?q=b03001&g=040XX00US25,25$1600000)

This dataset shows the Hispanic population in Massachusetts, ordered by the country of origin. I got a collection of .csv files (one per year), and I plan to create bar/line graphs to show the population growth in Massachusetts and Boston throughout the years. Also, I intend to use this data to make an interactive map to show the population growth in Massachusetts throughout the years.

4. State Immigration Data Profiles (1990-2022):

<https://www.migrationpolicy.org/data/state-profiles/state/demographics/MA>

This dataset shows demographics regarding foreign-born and U.S.-born, from 1990 to 2022. From this, I plan to show the percent change of foreign-born and U.S.-born individuals. More specifically, I'd like to emphasize the percent change of Latino immigrants.

5. The Importance of Immigrants to Boston's Continued Prosperity:

<https://www.migrationpolicy.org/data/state-profiles/state/demographics/MA>

These slides show relevant data and graphics regarding the importance of immigrants in Boston. The data goes all the way back to the late 1800s. Also, it mainly shows Boston's total population, divided into regions of origin (Asia, Africa, Europe, and the Americas), and many more graphs. The story told here is that there was an economic, social, and educational advancement from immigration, and I'd like to follow a similar approach in terms of both storytelling and graph choices.

6. Boston's Immigrant Labor Force:

<http://www.bostonplans.org/getattachment/73239d8c-07de-48ac-9f9c-a150282b8a4b>

This report compares labor force integration and standard living indicators of immigrant workers in Boston. This report will be used for more data and further comprehension if needed.

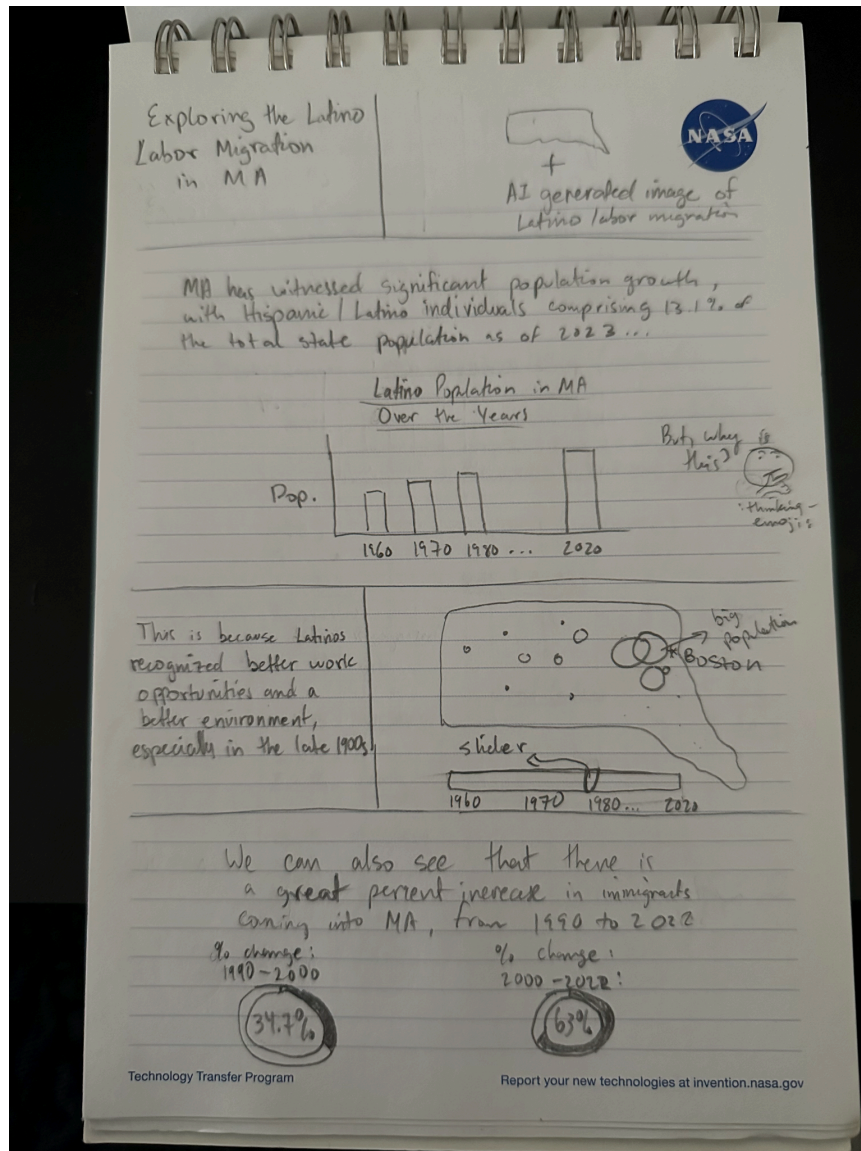
7. The State of Latino Education (2010-2020):

https://scholarworks.umb.edu/cgi/viewcontent.cgi?article=1293&context=gaston_pubs

This report shows us the recent education state in Massachusetts, especially the Latino impact on education. This report will be used to explore the educational influence that Latinos have had in recent years in Massachusetts.

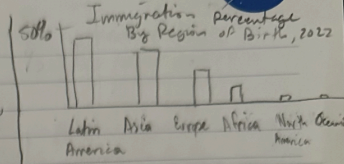
All the data preprocessing will be done in Google Colab using Python.

Paper Sketches

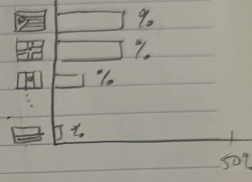




And 40.9% of those immigrations correspond to those born in Latin America, as of 2022.

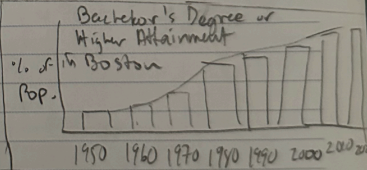


Breaking it down even further, we have the immigration percentages per country of origin in Latin America.

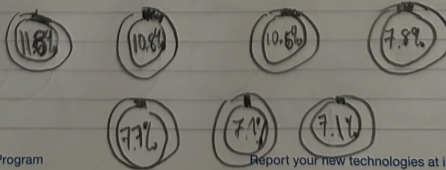


We saw the growth in population in MA, especially from Latinos. Let's also explore the impact in the socio-economic aspect

In terms of education, Boston has become more educated



In terms of workforce, Over 63% of Latinos work in Building & Grounds, ...





Conclusion

It's important to recognize the influence that Latinos have had in MA. There are more foreign-born and US-born Latinos in recent years, and the population is expected to grow, as well as educational attainment, success in STEM-related fields, healthcare, and many more. It's important to recognize that MA is advancing rapidly, and Boston is a living testimony of that with how culturally diverse it has become.

Sources

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Proposed Technologies and Plan

1. UI/UX:
 - a. Canva and Colorbrewer
2. Data Preprocessing:
 - a. Google Colab and Python
3. Data Visualization:
 - a. Structure: HTML, CSS, and JavaScript
 - b. Graph Interactivity: D3.js and SVGs
 - c. Animations: GSAP

Project Location

The GitHub repository can be found here:

<https://github.com/WilhenAlbertoHM/Labor-Migration-Vis>

References

PlaygroundAI: <https://playground.com/create>

Hispanics and Latinos in MA (Wikipedia):

https://en.wikipedia.org/wiki/Hispanics_and_Latinos_in_Massachusetts

MA Reports Data: <https://miracoalition.org/get-the-facts/massachusetts-reports-data/>

Immigrants in Massachusetts:

<https://map.americanimmigrationcouncil.org/locations/massachusetts/>

Hispanic Population in Massachusetts, by Country of Origin (2010-2022):

[https://data.census.gov/table/ACSDT1Y2022.B03001?q=b03001&q=040XX00US25,25\\$1600000](https://data.census.gov/table/ACSDT1Y2022.B03001?q=b03001&q=040XX00US25,25$1600000)

State Immigration Data Profiles:

<https://www.migrationpolicy.org/data/state-profiles/state/demographics/MA>

Immigrant Demographics:

<https://www.boston.gov/departments/immigrant-advancement/immigrant-demographics>

The Importance of Immigrants to Boston's Continued Prosperity:

<https://www.tbf.org/-/media/tbfor/images/video-stills/forum-files/alvaro-lima-sldie-on-importance-of-immigrants.pdf?la=en&hash=69D51D806AF0DED740ECB88565B0D4C307DDF5EC>

Latino/Asian Population Growth in MA:

<https://www.bostonglobe.com/2021/08/19/metro/latino-asian-populations-are-fueling-growth-massachusetts-diversifying-communities-census-shows/>

https://www.bostonglobe.com/2021/08/12/metro/new-census-data-is-being-released-thursday-beginning-2021-redistricting-process-earnest/?p1=Article_Inline_Related_Link