



# LEED Certified Buildings in Massachusetts

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# Why?



- Need more efficient and sustainable methods when consuming energy
- Growing interest in renewable energy
- Interest in student population influence on Massachusetts energy
- Found LEED Building Certifications to be motivating factors
- In 2016, MA was the #1 LEED Certified State [1]

# NEU Example:

- ISEC is LEED Gold Certified
- 75% less energy than a typical intensive research building
- projected 33 percent energy cost savings [3]

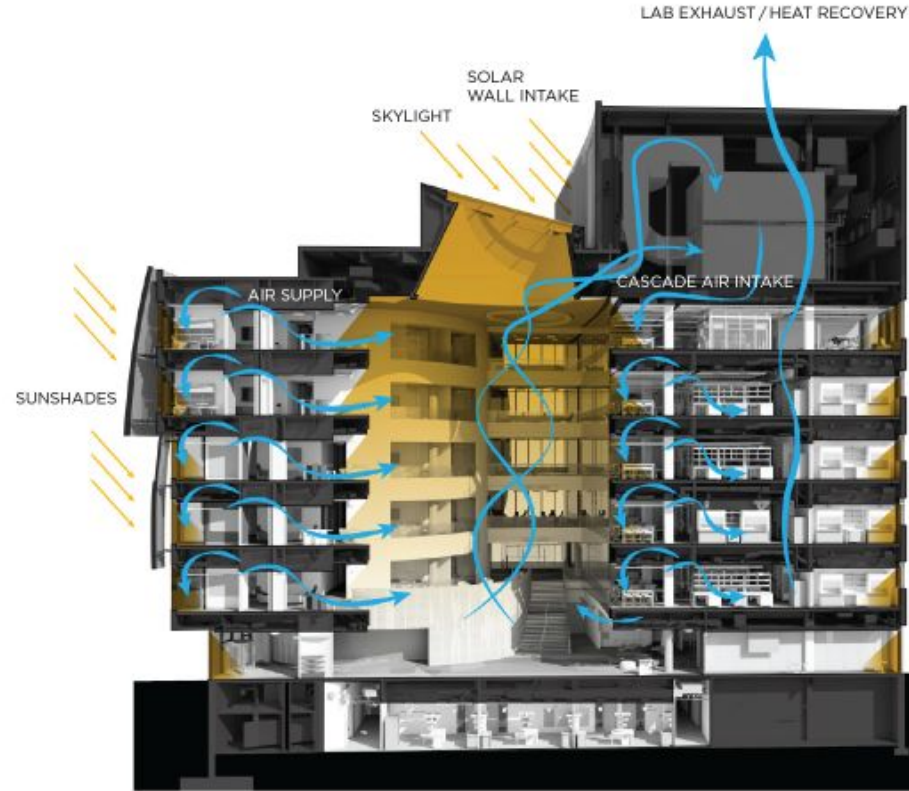


Image [2]

# Background



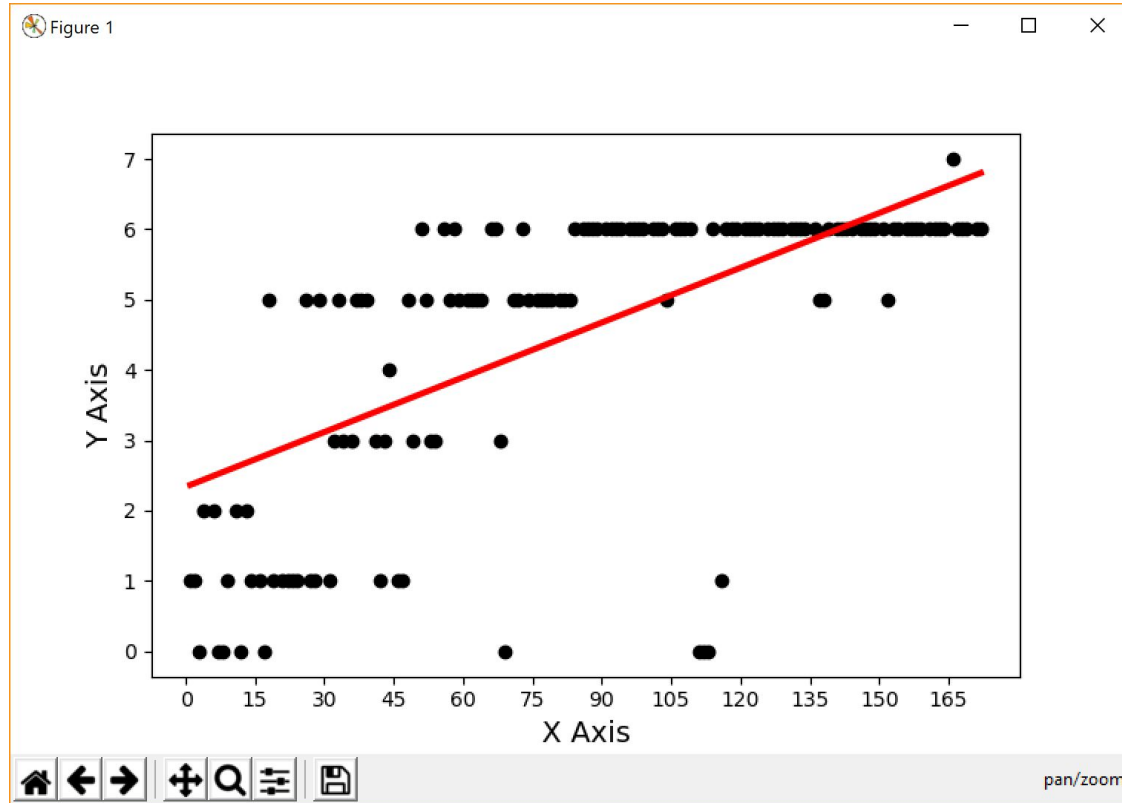
- U.S. Green Building Council's develops "safe, green, and easy to maintain buildings"
- MA filtered LEED data from USGBC Website [4]
- Student data from Department of Education - "Graduates Attending Institutions of Higher Education" [5]
- Time dependent data from the past decade

# Target Question

Is the student population in Massachusetts growing, and impacting the green-building movement?

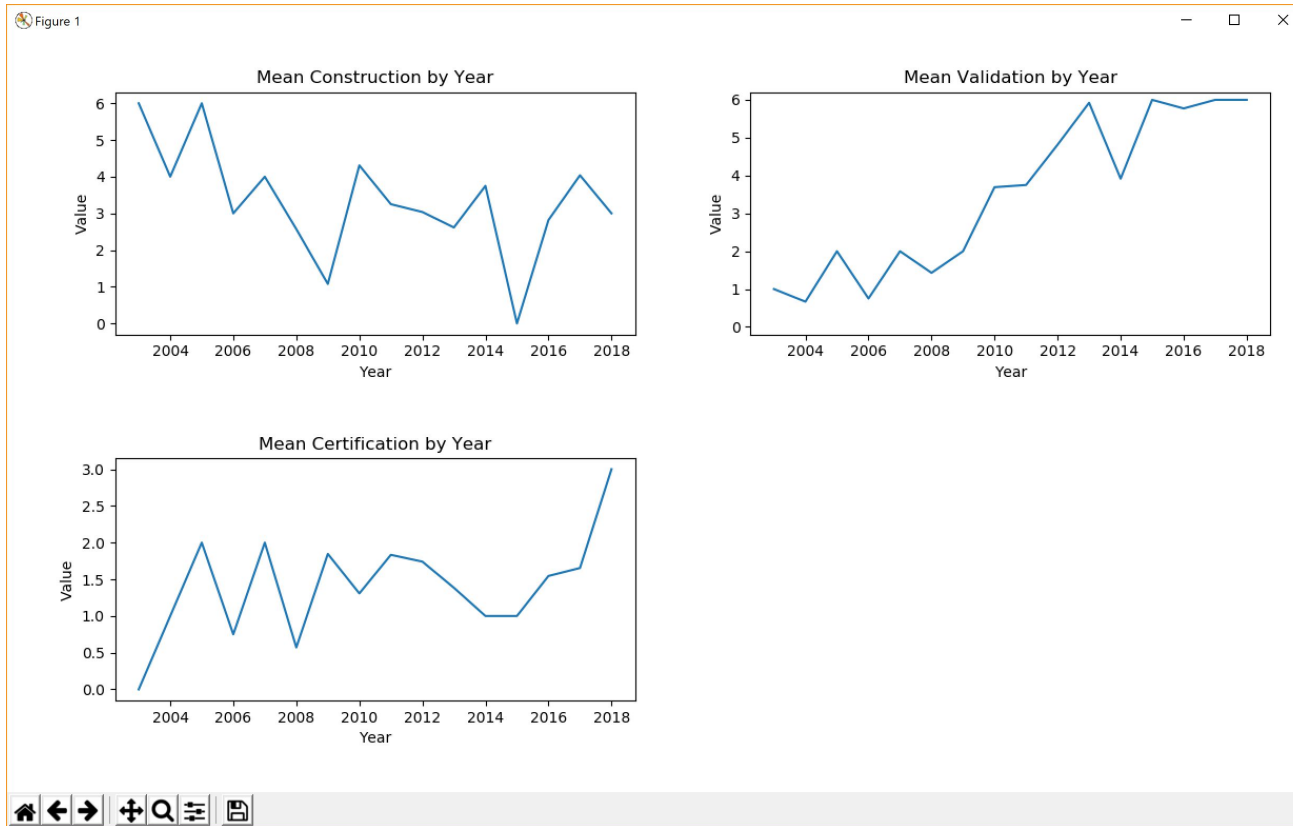
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# Data Analysis and Processing



Linear Regression: **Prediction**

# Findings and Visualizations



Certification, Validation by Year

# Conclusion and Future Work



- Holistic process: gathering data, cleaning, analyzing, visualizing in context
- Work can be replicated with other states, expanded with countries



# Thank you!

Questions?



# References



[1] L. McCadden, “U.S. Green Building Council Releases Annual Top 10 States for LEED Green Building,” USGBC, 25-Jan-2017. [Online]. Available: <https://www.usgbc.org/articles/us-green-building-council-releases-annual-top-10-states-for-leed-green-building>. [Accessed: 11-Oct-2018].

[2] ISEC Sketch. Payette.

[3] “Signature Building Raises Institutional Profile,” Payette. [Online]. Available: <https://www.payette.com/project/interdisciplinary-science-and-engineering-complex/>. [Accessed: 24-Oct-2018].

# References



[4] USGBC Home Page, 2018. [Online]. Available: <https://new.usgbc.org/>. [Accessed: 11-Oct-2018].

[5] “2015-16 Graduates Attending Institutions of Higher Education (District) - All Students - All Colleges and Universities,” 2017 Report Card - Clinton Elementary (00640050). [Online]. Available: <http://profiles.doe.mass.edu/statereport/gradsattendingcollege.aspx>. [Accessed: 10-Dec-2018].