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Multifamily Housing Availability and Educational Disparities of Wealth

Abstract:

Zoning laws and school districts are known to create inequity in educational attainment. This study attempts to see if broader housing trends such as multifamily housing availability have any effect on educational disparities of wealth. To research this, school data was compiled for the 40 largest cities in California and then tested against the multifamily/rental rate. Known trends in racial wealth and inequality emerged in the data but there was no significant statistical evidence found for the effect of multifamily housing rates. However, research into the field of alternative zoning regulations and housing development still may be a viable solution to educational inequality in the American education system.

Introduction:

Educational disparities are defined as any gap in achievement between two distinct groups and should be a major concern for cities across America. For the 2017-2018 school year, the National Center for Education Statistics stated that the adjusted cohort graduation rate for White students was 89%, while it was only 81% for Hispanic students and 79% for Black students (Public High School). In California, the graduation gap between White and Black students was 14% while the gap between White and Hispanic students was 6%(Public High School). An important part of this discrepancy is the wealth gap between the different cohorts as

Black and Hispanic families did not exceed 15% of the median, or mean, net worth of White families according to the Federal Reserve (Recent Trends). This is important because students from high poverty schools were 6.8% less likely to graduate than students from low poverty schools (2020 Building).

Zoning codes and school districting compound this problem by concentrating low-income housing and forcing attendance based on geography. Traditional high schools operate with attendance boundaries that force enrollment based on your address. Because zoning codes dictate where different types of housing can be built, single family neighborhoods generally have schools with lower poverty rates than their counterparts. The effects of poverty, especially concentrated poverty, range from structural inadequacies in schools, minimal community engagement, and a lack of extra funds for "meaningful educational experiences" (Buck, Ronald). In this study, I hope to answer the question of whether increased availability of multifamily housing influences educational disparities of wealth.

To study this, I will be conducting an analysis of the 40 largest cities in California. California was chosen because it represents a large and economically diverse state with various proportions of single family and multifamily zoning codes and diversity throughout. It also has a large number of medium, and large cities increasing the ability of the study to explain nationwide phenomena and be statistically relevant. The graduation gaps of wealth within a city will be compared to multifamily residency rates in an attempt to see if broader housing trends have a meaningful impact on educational disparities.

My study operates under the main assumption that increased availability of multifamily housing decreases levels of poverty concentration within cities and, as a result, reduces the level

of educational disparities present within a city. If this idea is found to be statistically significant, then it would create further evidence of poverty concentrations negative effect on educational outcomes.

Literature Review:

The most important concepts of this study involve educational disparities and housing availability. Housing availability in this study refers to city occupancy rates in multifamily housing, measured as a proportion of all housing available in a city (Quick Facts). Educational disparities of wealth are the difference in school attainment between schools with high levels of poverty and schools with low levels of poverty. In addition to this, zoning laws are important because they dictate many of the characteristics of multifamily housing and educational districting. Zoning is responsible for the location and availability of multifamily units within a city and works to segregate housing into income blocks. This enhances poverty concentration, and since school districts are built around this uneven distribution of housing, it creates schools which are also highly wealth segregated. Educational disparities have been measured by race as well and are also linked to historic zoning laws which have fueled racial segregations of cities (Redlining and Gentrification). Housing availability and zoning laws are closely interrelated topics and were expected to be prevalent in the literature, although the availability with studies pertaining to educational disparities was unknown. Previous exposure to related subject matter normally focused on the relationship of a specific type of housing project, such as mixed income housing, which created doubt for widespread research into a much broader research topic.

Housing Projects and Mixed Housing - Government housing projects and case studies of their effects on poverty concentration have been studied thoroughly, as well as their historically racial makeup and crime rates. Project housing created segregated neighborhoods that were extremely impoverished and over policed, leading to a host of negative outcomes as a result (Schill, Michael H.). New talks in many communities have focused on building integrated housing units and zoning codes which would purposefully create a mixture of low- and high-income homes in certain areas to avoid the mishaps of the past (Fraser, James C.). They would also provide positive peer influences on children growing up, allowing them to receive more opportunities and have a better shot at educational attainment. The main idea being enacted in some cities is the incorporation of mixed income housing. To do this, cities are rezoning single family districts to allow for duplexes and triplexes to be built or added onto lots previously zoned strictly for single family residency (Khouri, Andrew). While these new developments are important in combating the negative effects of restrictive zoning, they are not as relevant because they refer to experimental housing projects which are not prevalent across the United States. While these projects can create better outcomes for students by allowing a better mix of low income and high-income students to attain the same schools, there is a long way to go before we see major changes in America with these types of zoning codes. Moreover, they do not allow for the construction of multifamily housing structures or a larger size within these districts, lessening the large-scale impacts of this design. The type of housing project was also a predominant theme in the literature, again indicating a literature gap when looking at multifamily housing availability. These studies focused mainly on construction of specific types of housing projects such as mixed housing or the advent of duplexes and triplexes into single family neighborhoods. When looking

at these literature gaps, there seems to be a need for research into the effect of multifamily housing availability on educational disparities.

Poverty Concentration - The main goal of these housing projects is to reduce the levels and effects of poverty concentration, the main mediating variable in this study. Poverty concentration occurs when large amounts of low income or impoverished people gather in a single community. This creates a concentration of impoverished people which creates a host of negative outcomes for the local environment they reside and beyond. For schools, this translates to a large concentration of high need students which can overwhelm the system. These students are often in need of psychological help due to self-efficacy issues, stressful home environments, and a lack of outside help (Buck, Ronald). Moreover, more students in these schools require extra resources to ensure they achieve at an average level creating a scenario where at-risk children receive less help than normal children in better schools. Crime also becomes elevated in these areas leading to increased police surveillance and double the rates of victimization (Household Poverty). Moreover, since minority communities are more likely to be impoverished, we see a correlation of impoverished communities containing a majority of minorities. This racial segregation can worsen educational outcomes and justice issues, especially in the case of policy brutality.

Race, Wealth, Zoning, and Disparities - Because of this, race and socioeconomic factors are generally tied together and work together to explain educational disparities and housing influences. Allison Charette went over the disparities created through housing policies along socioeconomic and racial lines (Charette). She discussed the segregation of schools across the United States, directly measuring schools with high proportions of a single race for her study.

She pointed out that while educational achievement in general has been rising, “a sizable achievement gap remains between students of color and white students and between low-income students and higher-income students (Charette).” While her article focuses on racial segregation, she points out that because people of color are more likely to be impoverished, the housing issues that affect racial segregation also led to high degrees of socioeconomic segregation as well, both of which create educational disparities between students (Charette). A key finding in this and other articles was the innate correlation between issues of race and class disparities which cemented the notion that race must also be included in the study as a control variable to properly measure the effects of multifamily housing on educational disparities. An article from the research works archive also followed this pattern by deliberately grouping low-income black students with high income white students (Glass).

These findings also point to a high degree of complexity when considering zoning topics as they have not historically been based on simple economic motives. As a result of historical zoning policies such as redlining, people of color are more likely to be impoverished and less educated. It has created high levels of segregation within school districts as a result of exclusionary zoning little has been done about the issue since the fall of bussing in the 1970’s. This created vast differences in the levels of poverty concentration and segregation within schools across different states, creating a correlation between the two, and many articles focused on these differences and how they affected educational achievement. This indicates a gap in the literature of research that focuses solely on educational wealth disparities based on housing availability.

Measuring Poverty - To measure the socioeconomic disparities between schools the accepted standard is to observe free and reduced lunch program rates. It's possible to correlate the rate of students on the free and reduced lunch program as a proxy for the number of students at or near the poverty line. This measure seems to be the best indicator of this variable as it allows approximations of general wealth concentrations within a school without necessitating individual student level data. It also makes assessments of a large number of schools feasible by conglomerating school level data into a single statistic. It is not a perfect proxy as the relative poverty line varies between states and is not always consistent with the federal poverty level. Moreover, there are slight variations of the application of the free and reduced lunch program that vary state by state and may be difficult to account for within the study. However, as the literature suggests this is the accepted standard for measuring poverty within a school, the study will at least be comparable to other studies involving educational disparities of wealth.

End - Overall, the articles studied fell into a few main categories. The first category focused on educational disparities of class and race, with a focus on race, through the historical context of zoning policy. These articles illustrated the importance of including an accurate control variable for race because of the correlation between educational outcomes and race. They also highlighted new complexities about the creation of zoning codes which have translated to increased levels of poverty concentration in modern America. However, because of the focus on racial aspects of zoning, a gap in the literature was left when for research studying the effects of multifamily housing availability on educational gaps, not racial indicators. The second big category were studies involving different types of housing development projects being utilized by cities to attempt to reduce the effects of poverty concentration. These focused on a wide range of

outcomes as the focus of the study and left out broader questions such as basic levels of multifamily housing occupancy. This indicated another gap in the literature when looking for broader context research, especially which focuses on educational disparities.

Data and Methods:

This research thesis will use a cross-sectional analysis of the 40 largest cities by population in California for the 2019-2020 school year to assess the relationship between a city's multifamily housing rates and its educational disparities of wealth. The goal is to identify broader housing trends which may contribute to disparities in the public education system of California. Charter and magnet schools were not included in the dataset because enrollment is not based on drawn boundaries but rather applications. This means zonings effects do not apply since students can choose where they go to school. In addition to this, Opportunity and community day schools were also excluded because their purpose is to serve students who are at risk of not graduating or have already been expelled, creating a bias in enrollment which could skew the data. Larger cities were chosen as the focus of the study since they have more schools to compare. Moreover, the effects of zoning will be more pronounced as there will be more room for poverty concentration to occur and less influence on school data from suburban students who live outside of the city.

This study should have high amounts of external validity for large and medium cities in the United States, given the zoning and school district regulations are similar between states and cities. The results may not be applicable in other countries where housing, zoning, and schooling regulations may vary significantly. However, state variances in zoning laws school laws may create the need for additional studies of other states to determine if the effects hold true.

Independent Variable- The two main variables of interest in this study are the multifamily residency rate and educational gaps of wealth within a city. The data for the independent variable, multifamily residency rates, was collected from the census bureau (Quick Facts California). This data was formatted as owner occupied housing unit rates and signified the percentage of a city's residents who took residence in a home they owned. Residents not included in this were assumed to take residence in multifamily/rented structures. This variable acts as a proxy for actual multifamily housing availability since housing inventory reports were not available for all cities listing the precise number of units available. However, multifamily residency rates do provide a valid measure in proxy to assess the relative level of multifamily units within a city assuming vacancy rates are not drastically different between cities. This method of data collection was chosen above geographic zoning proportions within a city as it more accurately portrays the number of people living in multifamily/rented structures as opposed to the relative geographic mass of the zoned districts.

Dependent Variable- The dependent variable of interest is educational disparities and will be created with 2019-2020 high school graduation rates for all schools within city limits. High School graduation rates were gathered from Niche, a public-school review website (Explore Schools). This variable will be created by first sorting the schools within a city based on the rate of students on free and reduced lunch. Free and reduced lunch rates, as well as enrollment and English language learner rates were all sourced from the Educational Data Partnership (School District Financial Data). Once sorted, the schools were separated into two groups of equal size:

Group 1 with the lowest rates of students on free and reduced lunch and Group 2 with the highest rates of free and reduced lunch. If there was an odd number of schools, the school with the median free and reduced lunch rate was excluded from the data. The average graduation rate of Group 2 was then subtracted from the average graduation rate of Group 1 to create the graduation gap, or educational attainment gap. Positive numbers reflect higher average graduation rates for the wealthier group, or the group with lower rates of free and reduced lunch. In all but 4 cities, the graduation gap was greater than 0 with a minimum of -3.75%, While a majority of cities fell between 0 and 8%. (See table 1 for distribution)

(See Appendix 1 for full list of descriptive statistics for all variables)

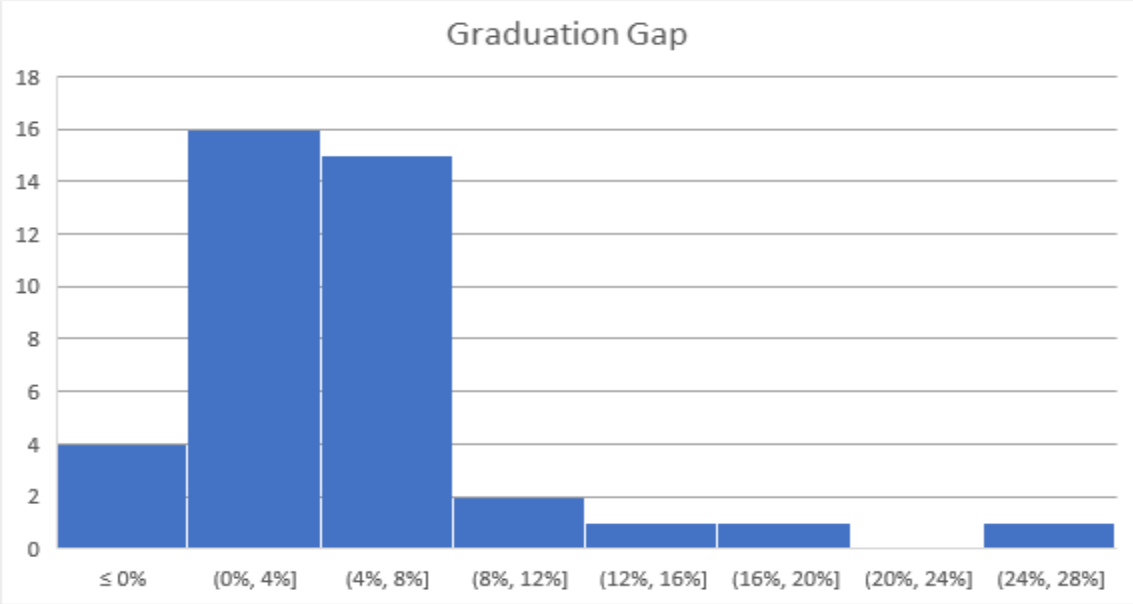

Table 1

The homeowner rates and graduation gaps for a city did not appear to be strongly related when looking at initial data and suggested that higher rates of multifamily housing led to higher graduation gaps (See table 2).

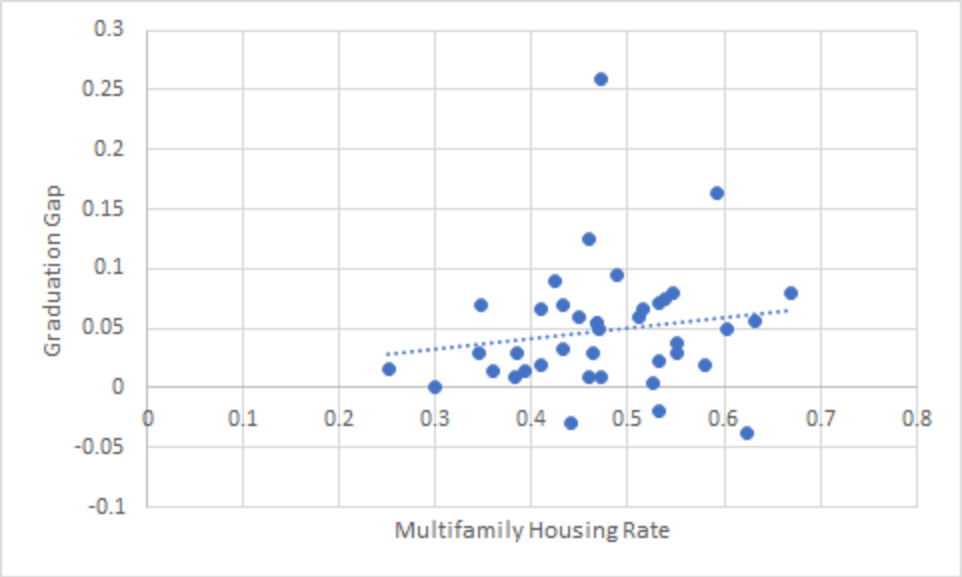

Table 2

Theory- With these two variables in mind, it is important to note the mediating variable that is not included in the study but facilitates the hypothesized relationship between them. This variable is poverty concentration. Because directly measuring poverty concentration for each school for a city would involve detailed building and personal information, it is unrealistic to utilize for this study. Instead, this study hypothesizes that increased availability of multifamily housing, measured by the multifamily residency rate, will decrease poverty concentration by allowing families to have more choice in their living location. This in turn will create more diverse schools which should decrease educational gaps.

Control Variables- The studies control variables included demographic information, school information, known contributors to educational attainment, and citywide statistics. The demographic variables included were demographic gaps and weighted averages of demographic enrollment for White, Hispanic, Black, and Asian students. Demographic gaps were created

using the same method used for graduation gaps and utilized data from Niche on racial enrollment. The weighted average of demographic enrollment was also included to see if broader trends in a city's student population contributed to educational disparities of wealth. These variables were created by multiplying the percent of a demographic in a school by the enrollment of the school, then dividing by the total enrollment of the city. White and hispanic student enrollment gaps showed notable connections to wealth as white student enrollment gaps were mostly positive and hispanic enrollment gaps were entirely negative (See tables 2 and 3).

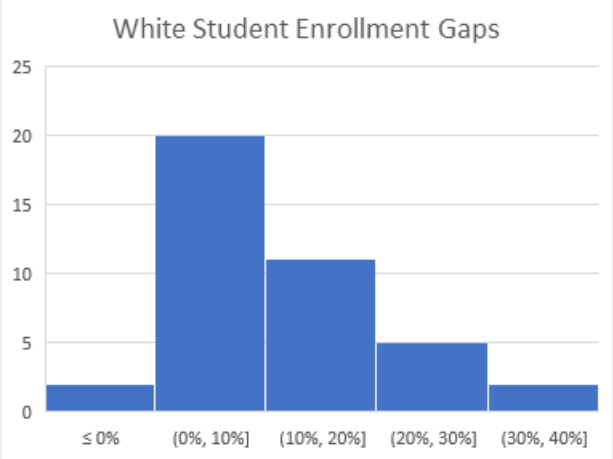

Table 2

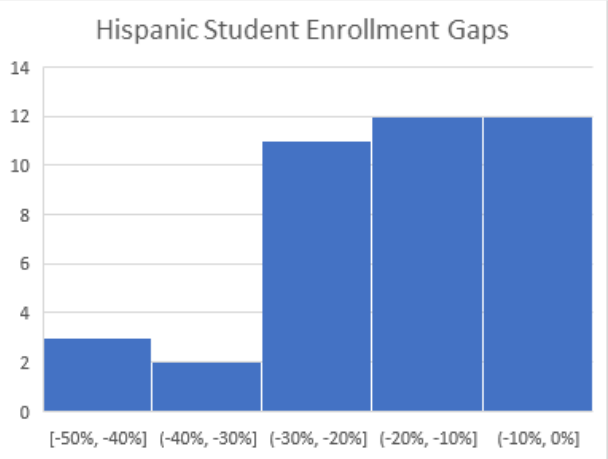

Table 3

School level control variables included in the study included the student teacher ratio gap, enrollment gap, and the English language learner rate gap. The student teacher ratio gap data was gathered from Niche while enrollment and English Language Learner Rates were gathered from the Education Data Partnership (Explore Schools) (School District Financial Data). Enrollment data was gathered to facilitate the creation of other variables. Student teacher ratio gaps and English language learner gaps are both known contributors to the success of students and as such the gap between school groups was included to control for variations in achievement that may be a result of them.

City level data control variables included the population and poverty rate. The Population distribution for the cities was between 141,258 residents and 3,966,936 residents (California Cities by Population). The poverty rate was collected from the census bureau with the assumption that higher rates of poverty would lead to higher levels of poverty concentration.

	min	max	median	mean	stdev
Student Teacher Ratio Gap	-1	6	1.469512	1.382434	1.4638
Enrollment Gap	-1099	1413	305	307.0014	472.9005
FRL Gap	-3.57425	-0.04	-0.20183	-0.30825	0.540858
ELL Gap	-0.296	0.001	-0.07725	-0.09593	0.063516
Graduation Rate Gap	-0.0375	0.26	0.04375	0.048679	0.051775
White Enrollment Gap	-0.117	0.394	0.091333	0.104752	0.102697
Hispanic Enrollment Gap	-0.476	-0.034	-0.168	-0.18461	0.106848
Black Enrollment Gap	-0.14567	0.085	0.000125	-0.00609	0.049994
Asian Enrollment Gap	-0.082	0.4095	0.049875	0.072311	0.079762
White Weighted Average	0.005293	0.521109	0.129816	0.166127	0.120808
Hispanic Weighted Average	0.104159	0.960983	0.575467	0.561888	0.219044
Black Weighted Average	0.001766	0.290947	0.057593	0.069376	0.059826
Asian Weighted Average	0.021681	0.664748	0.120341	0.157627	0.148515
Population	141258	3966936	209456.5	398330.5	626004.9
Owner Occupied Housing Rate	0.33	0.749	0.531	0.524425	0.090905
Poverty Rate	0.043	0.26	0.1385	0.13495	0.047777

Appendix 1

Results:

The purpose of this study was to see if relatively higher levels of multifamily occupancy rates had an effect on educational disparities of wealth within a city. The idea was that higher rates of multifamily housing would indicate a larger availability of multifamily housing throughout a city. This, in turn, would decrease the relative levels of poverty concentration and poverty concentration's negative effect on educational outcomes. To test this hypothesis, the following regression model was run using a standard OLS estimator, the results are displayed in table 4 below. The adjusted R squared value for the regression was 63.67%, indicating good levels of explanatory power for the model.

	Coefficient	P-Value
Student Teacher Ratio Gap	-0.0035	0.456
ELL Gap	-0.72011	0.000***
White Student Enrollment Gap	-0.16451	0.266
Hispanic Student Enrollment Gap	-0.31224	0.128
Black Student Enrollment Gap	-0.1528	0.518
White Student Enrollment Gap 2*	0.966228	0.067*
Hispanic Student Enrollment Gap 2*	-1.22067	0.025**
Black Student Enrollment Gap 2*	-0.23939	0.266
White Weighted Average	0.115091	0.134
Hispanic Weighted Average	0.11782	0.017**
Black Weighted Average	0.28851	0.081*
Owner Occupied Housing Rate	-0.05224	0.498
Poverty Rate	-0.43162	0.023**
Construction	-0.03578	0.521

Table 4, * = 10% Significance Level, ** = 5% Significance Level, *** = 1% Significance Level, 2* = Squared Term

First, it is important to note the exclusion of certain variables in the regression which were meant to be included in the final analysis. All Asian demographic variables were removed due to extremely high levels of multicollinearity present in the data with Hispanic demographic variables, with VIF scores above 12,000. Hispanic demographic variables were chosen over Asian demographic variables because of the larger percentage of Hispanic students in general (See Appendix 1). Population was also excluded from the dataset as there was no strong reason for its inclusion, the significance was low, and the removal did not significantly affect the R squared value.

Regression Outcomes- The English Language Learner Gap was the most significant of all of the variables and was expected to be negative. This is because the wealthier group was expected to have higher graduation rates, and the addition of students who are statistically more likely to struggle in school to this group would lower the average graduation rate for said group. Moreover, the effects are relatively large as a one standard deviation increase results in a -4.57% change in the graduation rate gap. The squared terms for both white and hispanic student enrollment gaps also matched the expected outcome. This signified that large enrollment gaps of White students, who are expected to be wealthier and therefore have higher graduation rates, has an increasing effect on graduation rate gaps. The opposite was true for Hispanic students as higher concentrations of the minority in the wealthier group led to reduced graduation rate gaps since the better performing group was filled with students who are expected to perform worse.

However, while the squared terms were significant for white and hispanic student enrollment gaps, the normal term was not significant. This indicates that enrollment gaps as a whole are not great indicators of student attainment. Moreover, both normal terms were negative, where white student enrollment gaps were still expected to be positive. However, ignoring the

lack of significance in the normal term, a one standard deviation increases above the mean led to a 2.65% increase in the graduation rate Gap for white student enrollment gap and a -3.01% decrease for hispanic student enrollment gap, which does follow the predicted signs and shows significant variation. Black student enrollment gaps were not found to be a significant predictor for the normal or squared term. This was not expected as there was ample research showing the large gaps present in African American students. Moreover, the black student enrollment weighted average actually predicted an increase in graduation rates of 1.7% for a one standard deviation increase. This could be because the mean weighted average enrollment for black students was only 6.93% with an even smaller median, indicating a small effect on school wide outcomes.

The student teacher ratio gap was expected to be a contributing control variable but was not found to be statistically significant. The poverty rate was significant, however, I expected higher rates of poverty to be correlated with higher graduation rate gaps within a city. This could fit with the theory however as the poverty rate was simply a city variable. This could mean that higher levels of poverty dispersed the negative effects throughout the school district/s, creating a limiting agent on how much disparity could be present as a result of wealth gaps.

The final variable in the study was the owner-occupied housing rate which was not found to be a statistically significant factor in graduation rate gaps. This means there is no evidence to support my initial hypothesis that increased multifamily residency rates and multifamily zoning has any significant effect on educational disparities of wealth.

Discussion:

This study did not find significant statistical evidence that broad multifamily housing rates had any effect on educational attainment gaps. However, this does not discount the initial research on the adverse effects of single-family zoning. Poverty concentration is still a known cause of educational attainment gaps, segregation, and racial inequality. Moreover, the effects of discriminatory zoning laws to target minority communities are still seen today in the form of racial wealth gaps and inequal access to education and healthcare.

The results of the study that were found are believed to be accurate and represent real trends in educational attainment gaps. Known demographic wealth disparities were displayed in the data and provided further evidence of the link between wealth and quality education. A larger study conducted over multiple states and with more control variables may improve the significance of many known contributing factors to educational disparities, such as student teacher ratios. Delving into the type of housing and availability of specifically affordable housing may also show greater significance when analyzing educational trends as there was no control for high rent multifamily housing. Rent controls could be included such as average or median rent price as well as income statistics, either by city or school enrollment. Issues involving poverty concentration may also require knowledge about income and rent levels of individual neighborhoods and people within a specific school boundary.

Is Mixed Housing Adequate - Currently, the solutions that have been proposed by cities to alleviate housing stress include small additions of mixed family housing in the form of duplexes and triplexes being allowed on single family lots. While this does create lower income housing in wealthier neighborhoods, it comes with positives and negatives. First, it doesn't change the

actual zoning considerations of single-family zoned lots. This does make it easier to implement as there is less push back from the general population since there is unlikely to be major development in the affected neighborhoods. This is a positive as it expedites the process of incorporating lower income houses and more housing availability into the city. However, this solution does not promise large scale change as a result of that. Because single family homes can only occupy 2 to 3 families, there will not be a large increase in the amount of housing available. This combined with the fact that a majority of homeowners will not choose to convert their home to a duplex, or triplex, limits the scope of this action.

The solution to the problem of poverty concentration requires large scale reform by cities and may not be feasible or come with large externalities. The abolishment or severe restriction of single-family zoning would allow for multifamily lots to be built in wealthier neighborhoods but would also come with many drawbacks. While this would be ideal, it would be difficult to implement as it would require creating new zoning code for the cities. This would create large amounts of community pushback as homeowners do not want to sacrifice the makeup of their neighborhoods and want to preserve property prices. They may also be incentivized to create private neighborhoods to exclude residents or find new locations to live altogether that they find more desirable.

Another way to incorporate mixed housing could be changing a proportion of single family lots to multifamily lots, allowing rental properties to be built in wealthier neighborhoods. Tax incentives could be given to developers to push the creation of affordable multifamily housing, directly placing low-income families in more affluent neighborhoods. While this would also receive community pushback, the scale of the action would be much smaller and the effects much more targeted. This would act as a direct creation of low-income

housing in wealthier neighborhoods, fueling the expansion of affordable housing and mitigating levels of poverty concentration.

Impacts on Poverty Concentration, Segregation, and Educational Outcomes - If cities were to reform single family zoning laws in favor of mixed housing, poverty concentration and negative outcomes could be reduced on a city-wide basis. For starters, spreading out affordable housing across the city would allow levels of poverty concentration to decrease. It would also be a good starting point in reducing segregation in both communities and schools. Since minorities are more likely to be impoverished, this would allow the dispersion of minorities into more affluent areas where they can find positive peer effects and reduce the cyclical impacts of poverty and discrimination. This would also create direct bridging opportunities and enhance diversity as people would have more exposure to different cultures. The effects on education would be the most tangible and quickest realized though. Because of the way school funding works, the development of affordable housing in wealthier single-family neighborhoods would decrease the levels of poverty concentration in schools. Moreover, it would also increase diversity levels in schools and provide students with a positive peer effect as they meet students who have had access to more resources throughout their life. This would transfer the burden to schools which have the wealth and capacity to properly educate them. This would not erase the problem of predominantly low-income schools, but it would lessen the negative effects of poverty concentration by dispersing them across a wider area with more resources.

Tracking Progress - These effects would be observable within a decade as residencies are built, people begin to move, and students begin gaining access to higher quality education. We would be able to track these changes to see how large of an impact increasing multifamily housing availability has on educational disparities. Changes in levels of multifamily housing for a

specific school could be tracked, then the educational gaps could be compared to old rates with less housing development and other schools with varying levels as well. By doing this, we can compare different approaches of cities to determine what the best way of reducing single family zoning is and how to best capitalize on the positive effects of doing so. This type of long-term study is needed to track the progress and search for new problems and solutions to issues that may arise in implementation of such policy. It is also important for cities to experiment with what changes they are most capable of to see what a city really needs to do to begin the process of limiting educational inequality and poverty concentration.

Other Benefits - Benefits of restricting single family zoning would also be seen in other inequalities that were mentioned in this article. With less poverty concentration, more people would have access to better healthcare options. It would also allow more impoverished people to experience the benefits of living in affluent communities, such as better access to grocery stores and other higher quality stores. It would also make it harder for cities to place manufacturing plants and landfills next to impoverished communities as they would be more spread out and less susceptible to inequitable practices. Ideally in the long term, all communities would be of mixed socioeconomic status, giving each community an equal voice in city legislatures and preventing impoverished and minority communities from being the target of unequitable zoning practices.

Conclusion:

The effects of educational disparities are widespread and lead to sustained inequity throughout the full life of a child. It is imperative that we solve these issues of educational inequality at the earliest stages of life and through any means possible to create a nation that is equal for all. By reducing educational attainment gaps, impoverished and minority students have better chances at graduating, going to college, and receiving higher paying jobs which can break the cycle of poverty.

Zoning plays a large role in creating these disparities by concentrating poverty in geographic locations which negatively affect outcomes across all walks of life. This poverty concentration creates an unnecessary strain on schools and teachers through an excess of students who need additional help. It also creates geographical segregation and community segregation as minority communities are more likely to be impoverished and face poverty concentration. This has negative effects on racial equity as well as socioeconomic equity and leads to discrimination. Poverty concentration also affects health and quality of life outcomes, with reduced access to adequate healthcare, grocery stores, and increased proximity to sites such as landfills and manufacturing plants.

By reducing the spread of single-family zoning, we can begin to diminish the effects and reach of poverty concentration and fight against inequality in every form. This is a necessary step to advancing the equity of the United States and should be done in cities across America. While broad trends such as multifamily housing rates did not have any significant effect on educational gaps, the studied problems of poverty concentration and wealth inequality can still be combatted.

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