Severe Wage Stagnation and Cost of Living Growth Since 1980: An Analysis of Young Americans’ Financial Distress and Potential Policies for Addressal

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Abstract

This paper draws from data from various national sources to analyze and properly extrapolate conclusions regarding the United States' growth in wages in comparison to the growth in prices of multiple significant expenditures for urban citizens throughout the last 44 years. Through this study, the cost of living growth for the majority of Americans is explored with the perspective of real dollar cost indexed to 1980 to show the past 44 years of economic change. Using computer modeling, a linear regression prediction is made to model how these changes will develop in the future if left to continue in their trends, keeping in mind recessions and the volatility of certain expenditures. This paper shows that specific categories of cost, especially the main ones included in the basket of goods and services, as well as widely prevalent and essential costs like health insurance, college tuition fees, groceries, utilities, and housing, have far outgrown and outpaced the wage growth over the same period. This paper also offers potential government solutions in policies to help alleviate the stresses plaguing young citizens that limit economic mobility and widen the income and quality of life disparities between classes.

Keywords: cost of living, wage stagnation, generational wealth, housing crisis, college tuition, income
Introduction

Wage stagnation in America has grown to be more and more well-known as a concern to America’s people due to increased publicity and is now a popular topic of discussion when discussing the future of America’s economy, the success of its citizens, and the policies that govern how our country should proceed forward. In order to better understand this subject, its history and possible consequences of allowing the observed trends to continue, and how far wages have grown relative to relevant expenditures for urban citizens, this research paper will delve into the phenomenon of wage stagnation in the United States starting from the past 44 years and expand our viewpoint a decade into the future while accounting for recent recessions for modeling.

While there is much commotion about how prices have jumped significantly, many places only use nominal dollars for their comparisons. While this is effective and can provide some information as to the difference in wages and costs, it neglects to consider inflation. Adjusting nominal dollars to constant dollars will allow for a real evaluation of the power, growth, and/or stagnation of data points. Thus, in this paper, we will compare the real buying and spending power increases of the average salary to the real cost growths in significant and prevalent spending areas. Using the data found, this paper will analyze the results, extend a prediction into the future with relevant statistics, and offer potential targets to address these issues.

The implications of these findings are profound, not only for the workforce but for the broader socio-economic fabric of the United States. As wage stagnation persists, the ripple effects are felt across consumption patterns, savings rates, and even social mobility, thereby reinforcing the cycle of inequality. This necessitates a multi-faceted policy approach that not only addresses the symptoms of wage stagnation but also its underlying causes, promoting a more equitable and sustainable economic growth model.

Problem & Reasoning

Starting from 1980, the past 44 years have witnessed significant stagnation in median and mean income and weekly earnings for urban citizens, contributing to the widening gap between wage growth and the skyrocketing costs of essential expenditures such as healthcare, college tuition, and housing. Wages in the United States have risen consistently slower in comparison to the much faster rise in the costs of essential goods and services like the widely recognized rights to life of food, shelter, and healthcare (1). This discrepancy highlights a growing concern over the affordability and accessibility of basic needs for urban citizens, further exacerbating the challenges of wage stagnation. The disparity between slow wage growth and rapid increases in living costs underscores the pressing need for policy interventions aimed at bridging this expanding gap. On top of this, college tuition fees are ever more expensive and ever
more prevalent as a leading cause of concern and financial stress among young people in America, as college education has become essentially a requirement for young urban citizens to access careers and, subsequently incomes to support themselves in a society with ever-growing costs of living \((2)\). College degrees are often considered to be a basic requirement for living in a modern society, yet come saddling new members of the American workforce with tens to hundreds of thousands of dollars of student debt \((3)\). This has long-lasting repercussions for graduates, as these monthly payments limit the amount of leftover money to be spent on housing, car payments, car and health insurance, and various necessities like groceries, clothing, utilities, and technology. Due to living on a stricter budget, modern graduates are unable to pursue the same lifestyles as their parents and grandparents; often, they are forced to share apartments for more affordable rent, wait until their forties to afford a home, purchase lower-quality products and thus be forced to spend more on replacements, are unable to buy in large bulk and reach discounts, eat more cheaply while sacrificing often more expensive healthier restaurants and groceries, and finally neglect long-term investments without spare time or money to spend on common generational wealth builders like real estate and stocks. These effects have led to and will lead to continued repercussions across generations as those uninhibited by these financial stresses continue to grow while the lower economic classes are held in place without significant chance for mobility.

Since 1959, we have seen a significant increase in spending allocated towards housing \((2)\) and diverted away from living necessities like groceries and clothing, which points towards an unwelcome development: American citizens are facing a future entrenched in debt without reaching the same qualities of life their predecessors only a couple generations ago could. If these trends continue without serious and immediate addressing through widespread government policies of limiting price growth in privatized essential industries, costs of essential items and services could strengthen their chokehold on future Americans’ prosperity.

To properly make positive social progress and push towards changing the private systems currently in place, our biggest tool is voting. A large portion of American people are unable to boycott essentials due to their already precarious financial position - they, both metaphorically and literally, cannot afford to simply not purchase these goods and fund the industry exploiting them. Thus, to undertake the process of real change, we must look towards politics. American roots are found deeply entrenched in democratic solutions, and our country is set up such that this is one of our only options for bringing change to our society. Voting for the right candidates who will put into motion the bills and policies that will benefit the people most is extremely important, as well as knowing the effects, history, and logic of proposed policies and solutions. In these cases, awareness is vital - awareness is what will propel the engine of the people to move together in a positive and productive direction. Having a fully educated perspective on relevant subjects in the political and socio-economic spheres is highly important for
each citizen to fulfill their civic duty to the greatest capacity. This paper aims to serve as a wide-spanning source of information for the subjects covered, such as to spread awareness of the current situation as well as the potential consequences and solutions.
Literature Review

A study from the Economic Policy Institute provides a detailed analysis of the near stagnation of hourly wage growth and its consequences for living standards for the majority of American workers. This source also delves into the causes of wage stagnation and inequality, providing valuable insights into the factors contributing to this issue, arguing that rising income inequality and slow growth in living standards for low- and moderate-income Americans are key economic challenges that need to be addressed. Hourly wage growth has significant consequences for American living standards, as the majority of Americans rely on their paychecks for their income, with many having fewer and fewer leftover real income compared to what those many decades ago were able to save away. They argue that wage stagnation for the majority of American workers was not caused by abstract economic trends but rather by policy choices that favored those with the most income, wealth, and power.

Furthermore, these shocking wages greatly target and affect recent college graduates, showing that many of them are experiencing stagnant hourly wages and declining access to employer-sponsored health insurance (4). Thus, on top of having to vie for even more competitive career opportunities and being faced with overwhelming experience requirements and a huge field of competitors, they are often left with less real pay despite an increased base hourly from the past. Greatly growing expenditures are forcing many to fork over a large portion of their income and be stripped of their ability to progress higher up the economic ladder without money to spend on long-term investments or better living conditions and opportunities.

We additionally see that while worker productivity has actually risen in modern years, the minimum wage has been sorely left behind, which points towards a stagnation in the middle class as CEOs and the top one percent of society have had their wages grow to exorbitant levels, with CEOs now making 296 times what a typical worker makes, and top one percent wages growing by 138 percent since 1979 (4). These show an unfortunate and unfair imbalance between the elite of society and those working under them, with little chance to make their way any higher up the social ladder.

Salim Furth points out specific errors, such as CAFE standards and monopolies in the auto dealership industry, lead to inefficiencies that can impact consumers negatively and drive up cost of living (5). The report also suggests that American industries should reevaluate these policies to understand the full effects and see where policy changes can create more favorable outcomes, with a key example being local land-use laws - a key area for potential reform to alleviate financial burdens on residents. Local officials have the power to influence costs through zoning regulations and permitting processes. By adopting less stringent rules and expediting projects, local leaders can make living more affordable for their constituents.
The report emphasizes proactive measures to rectify costly policy mistakes and enhance economic efficiency, calls for a shift towards market-based policies, and highlights the potential benefits of such approaches for consumers. By advocating for smart policy changes and a broader perspective on costs and benefits, we can bring improvements in living standards and affordability for all.

Ronald Janssen (6) discusses various strategies that governments can employ to tackle the cost-of-living crisis and protect workers from inflationary pressures. One approach is to implement benefit systems that redistribute income more equitably, like imposing windfall taxes on corporate profits similar to what countries like the United Kingdom and Spain have done in the energy sector. Targeting excessive corporate profit-making could help redistribute the earnings back to workers, social benefits, or public investments. Furthermore, a global minimum tax of 15% on profits of multinational enterprises, as part of the OECD agreement signed by numerous countries, could potentially generate substantial additional global tax revenues annually.

Janssen discusses that by strengthening wage institutions and supporting collective bargaining and minimum wage agreements with social partners, like what has been implemented in Portugal, societies can increase the flow of national income to wages and provide fiscal incentives to companies that enhance wages through collective bargaining. In Colombia, minimum wage indexation is enforced in the absence of agreements between social partners. This emphasis on improving wages and social safety benefits aims to curb the disproportionate burden of the cost-of-living crisis on low-income earners, especially in terms of basic necessities like energy and food. Another key player in this issue is trade unions, as they advocate for government actions to bolster social benefit systems; there is a clear correlation between trade union density and the effectiveness of income redistribution through social benefits. Efforts to make social benefits poverty-resistant are underscored as crucial in protecting vulnerable populations from the financial strains of inflation.

Overall, a collaborative approach between accountable governments, responsible social partners, and supportive monetary policies is key to facing the challenges posed by the cost-of-living crisis and ensuring the well-being of workers.
Methods and Materials

The goal of this investigation was to answer the following question: How severely have wages stagnated in comparison to the real growth of costs of living in America? To accurately gain a perspective on the comparison of today’s wages and expenditures to the past, the study looks at the past 2 generations of employees and workers, thus starting the data collection from 1980 and choosing data from urban cities due to the concentrated nature of cities more accurately showing the growths of costs and incomes in different sectors. All programming and analysis was done using Python and can be accessed here:  

https://github.com/wu0122/Indexed-Expenditures

Throughout the collection of data, it was difficult to find proper data ranging back to 1980 for the average annual health expenditure per capita. As mentioned in the methodology, this was remedied by taking the total national health expenditure and adjusting it to the population growth. Since what we are measuring is an index of growth, the actual data values of health expenditure are not as important as the fact that the national health expenditure is roughly proportional to the growth of health costs for an individual. For the actual values predicted, we use modern annual household mean healthcare expenditures for dates we do know and base the past and future values on them.

Another limitation of this study is that using a linear regression can be less accurate for more complex patterns and curves. Using a polynomial regression of a higher degree would provide more accurate prediction results but also comes with the caveat of potentially creating an artificially high future prediction thanks to not being able to inherently predict the ups and downs of price growth in a complicated system. Polynomial regressions of higher degree, unlike sinusoidal functions, are not waves and end up with quickly-growing functions and slopes on the future side. In the end, I decided to use linear regression for a more understandable and less bold claim for the volatile future. One can see when comparing the real index data to the prediction data that the index values do not line up. This is due to the nature of an approximation, so these predictions are not to be taken as completely exact but rather ballpark estimates. These estimates do not account for any potential spikes or drops in the next ten years; only the overall growth rate of the 44-year or more recent years data.

Choosing and Sorting Data

As a general rule, except for when not applicable to datasets, the study chooses seasonally adjusted data to showcase trends in order to avoid seasonal fluctuations in prices and expenditures, as well as chooses to use constant dollars to account for inflation such that the growth in expenditures done by indexing is accurate to the real amount of money spent. Seasonal adjustment is made when data is measured monthly/quarterly as opposed to annually; the adjustment is made by removing the
predictable seasonal influences such as school schedules, holidays, or the seasons themselves that affect various rates of spending through taking unadjusted monthly or quarterly data, dividing by the seasonality factor, and multiplying by 12 or 4 respectively. The seasonality factor is the ratio of the amount in one month/quarter divided by the average amount per month/quarter over an entire year to get the relative amount of the data that fluctuates seasonally. In selecting data, the study chooses from several datasets that can give a reflection of how multiple sources of expenditure have grown in comparison to the growth in mean wages, selecting the Consumer Price Index (CPI), average yearly expenditures per capita for healthcare expenditures, groceries (food away from home), gasoline, house sale prices, and tuition costs and fees. One exception to this was rent, instead taken as median, as consistent average rent price data was not found for years spanning to 1980. Since we have used averages for these expenditures, we chose the mean income as our marker of growth for this study. Although the mean income is influenced by outliers more than the median, mean measurements for the expenditures are also affected in this way, and thus for a proper comparison, we must use the same measure of center.

For CPI, we use CPLFESL, or CPI, considering all items less food and energy, as those prices are often volatile and prone to extreme change that makes a good analysis of real, constant dollars less accurate. Since the analysis seeks to measure growth, cost indexes will be used as the data. Indexing is a common practice to measure growth in data, where one data point or value corresponding to a certain time or other value is chosen as a base and set as 100. Then, the other values are indexed to be relative scales of the base value. The general form of this process is:

\[
\left( \frac{\text{New Value}}{\text{Base Value}} \right) \times 100. \tag{1}
\]

However, before one can set these indexes for analysis since this study is looking at the real change in the spending power and costs in relation to the salary and not simple price growth, the dollar costs should all be within the same constant dollars. Constant dollars is simply a term for when one takes nominal dollar data, which is expressed as the price one paid for a certain good or service at that time, and adjusts according to the inflation change such that we see the real cost or amount of money reflected in today’s dollars. By adjusting to constant dollars, this study can provide insights into the actual burden of cost growth, as pure growth without inflation adjustment only tells half of the story. When we look at constant dollar growth, it can tell us that the real value of purchasing power as several expenditures have changed to become greater portions of the wage. To get constant dollars from the more common nominal dollar data, one iterates the CPI inflation adjustment process over the data values. This method is taking a base year’s currency to adjust the rest of the values by taking:

\[
\text{Nominal Dollar Value} \times \left( \frac{\text{CPI Value of Base Year}}{\text{CPI Value of Nominal Year}} \right). \tag{2}
\]
As mentioned earlier, the CPI used in this calculation is CPIFESL to more accurately reflect dollar values and disregard variable energy and food prices. For one source, the healthcare expenditure, since national spending was the only measure of data found, this study accounted for the growth in total national healthcare expenditure that comes with an increasing population by adjusting the nation’s population in a manner similar to CPI adjustment. The process was:

\[
\text{National Health Expenditure} \times \left( \frac{\text{Base Year Population}}{\text{Nominal Year Population}} \right).
\]  

(3)

**Predictive Models**

Finally, for a predictive model, we use a simple linear regression program from the data provided. Linear regression is a statistical process that uses a line of best fit to model the relationship between two or more variables and estimate the value of a response. The line of best fit is a straight line that most closely correlates to all the values in a dataset with the equation \( y = \beta_0 + \beta_1 x \), with \( \beta_1 \) representing the slope and \( \beta_0 \) representing the y-intercept, or where the y-value is when \( x = 0 \). To do this, you first find the sum total of “x” and “y” values, in this case, \( x \) representing time in years and \( y \) representing dollars. Using the following expression and finding the rest of the values in this expression, where \( \Sigma \) represents the summation of the variables and “n” represents the number of data points provides \( \beta_0 \):

\[
\frac{(\Sigma y)(\Sigma x^2) - (\Sigma x)(\Sigma xy)}{n(\Sigma x^2) - (\Sigma x)^2}
\]

Expression 5 gives us the best-fit slope of the line, \( \beta_1 \).

\[
\frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{n(\Sigma x^2) - (\Sigma x)^2}
\]

(4)

This was done separately for data patterns that were significantly affected by recessions, such as the housing recession of 2008, creating a new line after the recovery. To find values that follow the pattern of growth, one takes the equation and uses the following year’s values as “x” to calculate the corresponding “y” values. For the actual future values, we have used a formula taking modern data that tells the current annual mean expenditures and based the other values of the dataset using that real data using the process of:

\[
\text{Real Measured Data in Dollars of Year} \times \frac{\text{Nominal Index Data}}{\text{Current Index Data}}.
\]

(6)
Results

The following figures and table are the results of the data collected being analyzed and processed to present as index values and future prediction values. The five graphs are graphs of the index data of each expenditure, with the last three providing highlights along with linear regression lines. The table shows the coefficient and intercept for each expenditure’s data, along with R², adjusted R², and standard error. For additional pre-calculated data for regression predictions, see other resource documents. It is to be noted that all dollar values for future predictions are in 2024 constant dollars. For more data on the flat base indexes from 1980 without adjustment for real dollars, one can multiply the index data by the CPIFESL index data from the year one would like to see.
Figure 1:
This figure shows several common expenditures compared to the mean personal income through CPI adjusted dollars indexed to 1980.
Figure 2:
This figure shows healthcare, undergraduate tuition fees, house price, and rent compared to the mean personal income through CPI adjusted dollars indexed to 1980, taking out the more volatile utilities and groceries values.
Figure 3:
This figure shows house and monthly rent prices compared to the mean personal income through CPI adjusted dollars indexed to 1980. The three are fitted with linear regression models, with house price having a second estimation based on data after the 2008 recession.
Figure 4:
This figure shows the more volatile groceries, natural gas, and electricity prices compared to the mean personal income through CPI adjusted dollars indexed to 1980. All are fitted with linear regression models, with gasoline having a second line fit with data after 2020.
Figure 5:
This figure shows the healthcare expenditure and tuition fee prices compared to the mean personal income through CPI adjusted dollars indexed to 1980. All are fitted with linear regression models.
**Table 1:**

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Coefficient</th>
<th>Intercept</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>-0.639208</td>
<td>1361.482156</td>
<td>0.470093</td>
<td>0.469086</td>
<td>8.634252</td>
</tr>
<tr>
<td>Groceries</td>
<td>4.618517</td>
<td>-9045.828084</td>
<td>0.982798</td>
<td>0.982388</td>
<td>7.941739</td>
</tr>
<tr>
<td>Healthcare</td>
<td>7.580076</td>
<td>-14918.74671</td>
<td>0.992051</td>
<td>0.992036</td>
<td>8.436395</td>
</tr>
<tr>
<td>Rent</td>
<td>2.852678</td>
<td>-5571.740312</td>
<td>0.882791</td>
<td>0.882568</td>
<td>13.224463</td>
</tr>
<tr>
<td>House Price</td>
<td>1.647638</td>
<td>-3168.775351</td>
<td>0.886161</td>
<td>0.885692</td>
<td>10.484637</td>
</tr>
<tr>
<td>House Price After 2010</td>
<td>3.756203</td>
<td>-7421.644261</td>
<td>0.748875</td>
<td>0.744309</td>
<td>9.112354</td>
</tr>
<tr>
<td>Income</td>
<td>0.991952</td>
<td>-1868.160022</td>
<td>0.880116</td>
<td>0.879911</td>
<td>5.186285</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>4.488673</td>
<td>-8824.900205</td>
<td>0.684289</td>
<td>0.676947</td>
<td>40.506998</td>
</tr>
<tr>
<td>Natural Gas After 2020</td>
<td>13.363616</td>
<td>-26761.29842</td>
<td>0.740172</td>
<td>0.707694</td>
<td>25.426253</td>
</tr>
<tr>
<td>Tuition</td>
<td>4.840003</td>
<td>-9492.158502</td>
<td>0.971435</td>
<td>0.970756</td>
<td>10.787006</td>
</tr>
</tbody>
</table>
Costs of almost all measured values have increased significantly, most especially healthcare expenditures and tuition fees. This reflects and validates the common idea held among American young adults that college tuition and, subsequently, student debt is growing extraordinarily quickly and burdening a large majority of the 20-30-year-old population. Tuition fees rose quite high to 3.2 times their average amount in 1980 (7), and they could reach a 15.9 percent increase within 10 years with the high slope predicted by the linear regression. Additionally, we have seen that healthcare in the United States has exorbitant prices for those with health insurance and is completely unreasonable for those without it, which is made even more evident when compared to other highly modern countries like Canada and Taiwan. In 44 years, healthcare has grown the quickest out of all data points at 4.02 times their 1980 amount, or around 2.87 times the amount that the average income grew (8). If the predictive model is an accurate reflection of the health insurance and expenditure values that have been quite steady in their growth rate, then Americans could be looking at an 18% increase in costs over the next 10 years. As shown in Figure 5, the spread of data points is quite close to the linear regression line, telling us not only that the rate of growth has been relatively stable over the past 44 years but also that a future prediction based on this model is more accurate. As discussed in the Literature Review, not only are many college graduates having a harder time getting jobs, but those jobs are less likely to provide healthcare as a benefit for their employees, leading to a great financial burden being placed on these citizens already dealing with student debt and entry-level wages (4).

Housing is a hugely relevant and commonly discussed issue today - and it has been shown that the growth in housing affordability is severe, and thus many cannot afford to rent or own the same housing as one could one or two generations ago without sharing the space or saving for multiple decades. However, in comparison to the rest of the expenditures, rent and housing, pictured in Figure 4, only grew by around 100 and 80 percent, respectively (9). Although this may seem less significant in comparison to the high rises in tuition fees and healthcare costs, this is still a huge growth. Since all of these index values are based on constant dollar values, this shows us that the burden of these expenditures on the wage has nearly doubled in comparison to the portion of the wage housing costs in 1980, reflected by the decline in homeownership and the rise of homeowner ages (2). Housing is, of course, necessary for life, and these growing costs only further sap the life and potential of wealth accumulation from modern workers.

Houses and apartments are becoming less affordable by a considerable factor (2) - rent could reach around 23 percent higher than what is currently the median rent in America, around $1,837 (10). Housing, around $420,800 in 2024, could grow around 11 percent (9). Housing and rent in recent years have grown more slowly than the rest of the expenditures we have analyzed, with house prices being slower than rent. However, due to the nature of how expensive rent and house prices are, these percent increases reflect huge differences on top of already nearly unaffordable costs. To be noted, as can
be seen in Figure 3, is that rent’s regression line is lower than the actual rent prices from 2020 onwards; the same is the case for housing from 2021 onwards. Due to the recurring spikes and falls of both housing prices and rent, the linear regression models can be less accurate in predicting volatile data like this for short periods of time, but the overall growth over long periods is roughly similar.

Student debt, as mentioned earlier, is huge when considering the financial stresses placed upon the American citizens of today - college tuition has been growing extremely quickly, especially so in more recent years starting in 2020. The overall student debt of today is 1.7 trillion dollars, only beaten by mortgage debt at 12 trillion dollars - which show how radically financially burdened American citizens are by these 2 large expenditures. Tuition fees have risen to be around 3.2 times the amount spent in constant dollars in 1980, or around 13 times the amount spent directly from 1980. These exorbitant prices for tuition are weighing down heavier than ever on today's students, and these fees are essentially a rite of passage in society - it's difficult to find a stable career and income without a bachelor's degree or higher, and it's been shown that jobs pay higher when one has a higher education. However, even with wage increases, the build-up of debt is hard to keep up with as interest on a higher price makes the debt grow faster, and with the high starting amount, it's likely one would be unable to finish the payment quickly enough to avoid being saddled with long term financial detriments.

Utilities are by far the most volatile and least predictable of the three sorted categories discussed. Electricity, almost unsurprisingly, actually fell in price by a significant amount. Out of all expenditures indexed and compared, electricity prices have become more accessible for Americans - and it's easy to see that truth in everyday life. Electricity has become a necessity for urban environments and is used everywhere; one can extrapolate that electricity efficiency in collection and distribution has played a role in this 16 percent decrease. Taking the regression, we can see around a 7.1 percent decrease from today - however, in reality, this means only a one-cent difference in dollars per kWh (11). Due to the fact that we are comparing from 1980, it's uncertain if the innovations in electricity efficiency from those times will continue at the same speed as the innovative speed from today to 2034.

As pictured in Figure 4, gasoline prices spike and fall to extreme degrees and have been for the past forty-four years. Thus, it's quite difficult to get an accurate gauge of the future short-term growth. However, it's still evident that over the past four decades, the costs have still soared to much higher levels of cost, even when accounting for inflation. At 2.98 times their 1980 price, gasoline grew faster than housing and rent, but due to the nature of gasoline not taking up a huge portion of real expenditures, this fast growth hasn't affected Americans the same way tuition, healthcare, and housing have. If one takes the large picture as an indicator of a prediction of gas prices, then we can see around a 14.7 percent increase from today's prices (11). However, since 2020, gas prices have spiked at an incredible rate - hence the second regression line, pointing at a 46.8 percent increase (11). However, as seen
on the same figure and mentioned before, spikes and falls happen quite often, so it is not with absolute certainty that the paper makes this prediction - it’s quite likely we see another fall in the near future, similar to 2010-2012.

Groceries, even more necessary than gasoline, however, are a different story from gasoline. Its slope has remained relatively constant, showing consistent growth and reaching 2.93 times its 1980 price (12). Groceries have alarmingly grown at a speed close to gasoline, all the while being much more expensive. Thanks to the consistent growth rate, the prediction of a 15% total increase in monthly expenditure seems to be more accurate. However, after 2020, likely due to the COVID-19 recession, groceries have risen at an even faster speed. This small spike was not as pronounced as the housing and gasoline spikes, and thus this paper did not create another regression for what could end up being inconsequential.

Finally, income has been shown to be dwarfed by almost every other expenditure - only electricity fell below, and house prices were closest in total growth. However, despite only growing to only 1.4 times the 1980 mean salary, this does reflect a difference of about 15,000 constant 2024 dollars (12). However, when faced with consistent expenditure growth at levels far higher than the mean income growth, the leeway for comfort, financial freedom and mobility, and ease of access to high-quality goods and services is shrinking quickly. The slow rate reflects a lower prediction in the linear regression, only rising 7.1 percent (around 4,500 dollars) to $64,572.

The rate at which costs have grown, especially when looking directly at the comparatively slower growth of the mean income, is incredibly concerning and could potentially lead to great poverty rates, lowered quality of life until after many more (in comparison to 1 and 2 generations ago) years working, and/or a stagnant middle class and growing lower class.

**Discussion**

A focus on affordability is necessary for government policy to curb these growth rates and allow for the slow catch-up of wages. The cost of living is a serious concern that has accelerated due to inflationary shocks from global supply disruptions. However, prevention with caps of key goods and targeting corporate “greedflation” may help to alleviate this issue (6). Janssen and Mishel (4) also point out that while expenditures and wages for the middle-class stall, corporations and CEOs grow ever richer and gain more control, which allows them to push profits with no real repercussions. Implementing anti-monopoly measures and taxing those with excessive net worths to a greater degree could not only prove to create a felt increase in wages due to lowered costs but also help in creating more infrastructure and policies to benefit the masses of America, like lowered tuition costs and more affordable housing, as will be covered. Additionally, as Janssen (6) suggested, windfall taxes on corporate profits, which have already been shown to be productive in the United Kingdom and Spain, and fighting
excessive corporate profit-making and pushing the wealth towards policies and functions that serve the majority of the public could help redistribute the earnings back to workers.

With the current housing crisis, a lack of supply, and constantly increasing demand, it’s recommended that the government both construct more affordable housing and enact policies that stop landlords and other multiple property owners from holding onto so many apartments and houses (5). Meyer (2) points out that the lowered amount of home-owners among millennials (only 18% of homebuyers and only 60% of older millennials at ages 40-42 own homes while 73% of the Silent Generation and 68% of Baby Boomers did at that age) is interconnected with other costs of living - alongside inflated house prices, the burden of student debt prevents 63% of millennials from saving for a down payment for a home. A simple cap to their growth is hard to imagine, so the more elegant solution would be to increase supply and thereby reduce the amount that prices are allowed to rise due to more competition.

In healthcare and tuition, these industries have become almost entirely privatized into corporations with such quickly generated money. In this case, a hard government-enforced cap and reduction of these high prices, as well as a reduction in student debt through loan forgiveness, would largely help the people. In the past, drugmaker company Eli Lilly capped the cost of insulin at $35 a month in the middle of the COVID-19 pandemic and were able to support themselves without real losses, showing these companies do have the capacity to perform these caps to save lives, yet choose not to (13). According to Shireman and Fast (3), college affordability is a huge issue that unites Americans, and the government can step in with a tuition cap to help solve this pressing problem. Without any real incentive to control tuition, private colleges can set their barrier to entry however high they want and force the class disparity and student debt issue to grow worse for the sake of profits. Caps are a similar solution to gasoline spikes - in Germany, a price cap was implemented in the natural gas changes sparked by the Russo-Ukrainian War, having a deflationary effect in an effort to protect households and businesses from soaring costs (14). Electricity, although not currently a large issue, could follow the same path. As for groceries, it’s a difficult situation - Americans see food prices as their top economic concern (15), but with the decrease in gas prices comes a decrease in transportation costs that plays a large role in the grocery prices. We see that the U.S. is lacking protections for farmers and grocery stores, which allows large monopoly corporations like Nestle or PepsiCo to institute higher pricing and thus drive grocery costs up as they provide many of the products Americans consume.

Overall, caps and reductions in key items have, in the past, shown useful and productive in slowing inflation and rising household costs. Alongside proper fund diverting and increased wealth taxes, the American government can slow and prevent the potentially disastrous future of a lack of economic mobility and lowered ease of access to the same comparative quality of life past generations have had.
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Author:
Hi, my name is John Wu, and I am currently attending Palos Verdes Peninsula High School. I did not receive any funding for this research, and I encourage others to use this data freely to spread awareness of this issue. While I did propose potential solutions, they are not completely one-and-only answers to the complicated problems we face and can be further explored in others’ research.