

# Affordability or Achievability? 

The Challenge for Family Policy in America

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## Measuring Affordability Over Time

We're here today to talk about whether or not family life in America has become unaffordable. In surveys of childbearing intentions, affordability and related financial concerns are one of the most commonly-cited reasons that families give for why they are not having children.' And as any parent, or in my case soon-to-be-parent, is acutely aware, kids are indeed expensive. There are diapers, and baby food, and formula, and childcare, and piano lessons, and summer camp, and college, and the cost of a bigger house, and the minivan, and all these costs associated with normal American life.

The most widely-cited statistic on the "cost of raising a child" comes from the USDA. Adjusting for recent inflation since their most recent estimate reflecting 2015 spending, USDA's numbers suggests that a married, middle-income household in 2018 probably spends almost $\$ 260,000$ to raise a child. That's considerably higher than in 1995, when, in inflation-adjusted terms, a married, middle-income household would have spent about $\$ 220,000$. 2

USDA's method is fairly straightforward: look at how families with kids spend their money, and then statistically allocate that spending to "statistical children." They also track differences in spending across regions, age of child, income of parents, etc. The key thing to understand here is that USDA is not estimating the cost of raising a child with some fixed basket of goods: they're just tracking and allocating what parents actually choose to spend. ${ }^{3}$

And as parental spending on kids has changed, so has income. Using income data from the Current Population Survey, the USDA-estimated cost of raising a child in a married, middle-income household in 1995 was about 3.3 years of those households' incomes. But by 2015, despite rising child-rearing spending, the cost expressed in years-of-income had actually fallen! USDA's 2015 estimates imply that the cost to raise a child in a married, middle-income household had fallen to 2.9 years of that household's income! Child-rearing actually got cheaper over those 20 years, once we account for how much families actually spend and how much money they actually earned.

Thus, by this crude metric, there's no affordability problem at all.

## Changing Prices, Changing Norms: Decomposing USDA's Child-Rearing Costs

But when we look in greater detail, the story becomes more complicated. When we look at specific products that parents buy, a lot of them have seen their prices rise dramatically since the late 1990s. The nominal, USDA-calculated cost of raising a child grew by about $60 \%$ between 1995 and 2015. But the price of private school tuition rose $172 \%$. The price of childcare and nursery care rose $109 \%$. The price of apples rose $66 \%$, while fees for lessons rose $77 \%$ and cakes and cookies rose $60 \%$. Meanwhile, many other goods saw price increases lower than the total child-rearing cost increases, but still substantial: milk rose $35 \%$, candy rose $44 \%$, soup rose $27 \%$, baby food rose $59 \%$, paper products rose $28 \%$. Recreational fees, kids' shoes, juiceboxes, and many other items rose 10 to $25 \%$. And then of course a few categories, most notably toys and childrens' apparel, actually saw a decrease in nominal prices. ${ }^{4}$ This was largely due to Chinese imports and bankruptcies among American companies in those sectors. Toys $R$ Us is a high-profile example of this, but there are others as well.

[^0]So as you can tell, the rise in child-rearing costs reflects a wide variety of shifting factors under the surface. Keeping your kid in clothes and with toys got a lot cheaper. Getting your kid educated got more expensive. But this all happened while incomes were, on the whole, for two-parent households, rising! What's going on?

USDA reports spending broken out by major categories: housing, food, transportation, clothing, healthcare, and childcare and education. It is helpful to look at these categories and decompose how much of the change in spending can be accounted for by price changes for specific products, versus changes in the things parents choose to buy. We'll start with clothing, but data for all of these categories can be found in the figures in the appendix. ${ }^{5}$

## Clothing

In general clothing costs have fallen since the late 1990s, yet total spending on clothes has risen. As a result, any reasonable estimate of parental spending on childrens' clothing will reach a simple conclusion: Americans today are buying far more baby clothes than they used to, or else buying far higher-end baby clothes. That's a behavioral change. Whether it's an affordability question is debatable. Is parenting less affordable now because there's a social norm of buying $30 \%$ more outfits, or $30 \%$ nicer outfits, than in the past? And that is the scale here: spending on clothing for kids has risen by $25 \%$ from 1995 to 2015 , but the price of clothing for kids has fallen by about $6 \%$. This means the quantity or quality of the clothing must have risen by about $30 \%$. Now, replay the last few baby showers you went to! It adds up, right?

But apparel is a unique category where the explosive growth of the Chinese textile sector after trade liberalization created unique pricing circumstances. Let's look at a market that is less likely to have been disrupted by China: transportation.

## Transportation

Transportation spending associated with having an extra kid has risen by about $60 \%$ from 1995 to 2015 . But transportation prices, for things like cars, train tickets, and gasoline, have only risen about $47 \%$. So aside from general inflation, parents are actually buying 10 or $15 \%$ more transportation, or perhaps betterquality transportation. Maybe they're driving more to soccer practice or vacations. Maybe they're buying more plane tickets instead of driving. Maybe they bought more expensive kinds of cars, like hybrid or electric vehicles. The available data parsed by USDA can't resolve that ambiguity, but the point is that while some of the change in child-rearing costs is driven by rising prices, which is clearly a question of affordability, some of it is driven by a behavioral change among parents. Whether this behavioral change is good or bad depends on exactly what change in spending occurred, and society's value judgments of, for example, the cost of carbon emitted by airplane engines versus hybrid cars.

## Housing

So we have some categories, like clothing, where parents spent more money despite falling prices. We have other categories where parents spent more money despite moderately-growing prices, like transportation. But we also have some categories where parents seem to have actually cut back on consumption, like housing and food. Housing expenditures have risen by about $37 \%$, even as housing costs have risen about $70 \%$. That suggests that the average American family in 2015 is facing much greater housing stress than in 1995. They're cutting back by about a third in terms of real spending, in terms of the size of house, for sure, with square footage of new housing having been in decline for a decade, but possibly also quality of housing. ${ }^{6}$ Alternatively, parents may be settling for neighborhoods

[^1]they don't want as much: further from work, further from family, lower quality schools, any number of factors could be in play. Academic research has demonstrated that neighborhoods have significant effects on children's economic opportunities in life, so this kind of negative selection may be a very bad thing for society on the whole. ${ }^{7}$ In other words, there's a very real "affordability problem" in the housing sector.

This shows up in research directly focused on family formation as well. Higher housing costs reduce local birth rates. ${ }^{8}$ Local zoning and land use rules that drive up housing costs, like extremely long permitting processes full of extra paperwork and community approvals, or building codes that overprioritize extremely rare risks, or rules requiring minimum lot sizes and minimum parking amounts, have all been shown to reduce birth rates as well. ${ }^{9}$ Without a concerted effort to increase housing supply, and doing so without destroying the natural amenities and green spaces many residents value, the family housing crunch will continue and place serious negative pressure on younger people hoping to get their start in life.

And I should note that this "vasectomy zoning" as it has been nicknamed is not always accidental. ${ }^{10}$ Many communities explicitly restrict the construction of new developments that they expect will bring in lots of children. Some communities, which are to all physical appearance normal neighborhoods, actually set rules on how many children can reside in the area, under the guise of providing suitable places for retirement. Many municipalities of a variety of sizes, but especially large, dense cities, have discovered that zoning out children is good for city finances: schools are expensive, and so-called "DINK" households, which stands for "double income, no kids," create a lot of tax revenue, and a lot of demand for $\$ 15$ cocktails and Barre studios.

The issue with all of this is that children have to grow up somewhere. When municipalities engage in regulatory attacks on families, such as by forbidding daycares in their zoning codes, prioritizing parking spaces over places to play, or DC's own absurd requirement of college degrees for paid childcare, ${ }^{11}$ their victims are children, and, ultimately, the price is paid by the country on the whole in the form of disappointed parents, a shrunken generation, and lower economic growth. This testimony is generally a highly technical account, but here I cannot help but say that there is no way to be pro-family and not do something to tackle the housing problem. It's not enough to give families a little more cash. It's not enough to provide housing for the very poorest Americans. We need livable communities with obtainable market-rate housing for families. And if building enough houses to discipline housing prices enough to enable healthy family formation negatively impacts the resale value of some suburban McMansions, a concern often raised in local town zoning meetings, or even recently in the Wall Street Journal, ${ }^{12}$ then that is a reasonable price to pay.

[^2]
## Food

Another category where parents may be experiencing some financial stress is on food. Food prices have risen by about two thirds since the late 1990s, and food spending has risen by about the same amount. So rising prices account for all of the increase in parents' food spending. This is a bit surprising, since American farmers are getting more and more productive over time, and we are a major agricultural exporter. Food prices should not be breaking the bank in one of the most agriculturally productive nations on earth! What's going on?

Well, if parents never bought any restaurant meals, food prices would have risen a bit less, by just $63 \%$. Prices of groceries have risen more modestly than food on the whole, because the price of eating out has risen considerably, by $72 \%$. The two price indices track each other very closely until about 2016, when the price of food at home flatines, and the price of food away from home continues to rise. It's unclear what is driving this shift. It's possible that it could be the rise of affordable food delivery services introducing new competition, changes in the prices of agricultural commodities, or something else. It's also possible that the untethering of restaurant prices from food prices could be driven in part by the wave of minimum wage hike increases over the last few years; however, as with other categories of spending, it's hard to say what exactly is driving these changes.

But there's a small caveat here. USDA tracks food spending, not food consumption. If families get food that they didn't spend market income on, like through SNAP or WIC or food banks, it won't show up in this data. To the extent that these programs have changed in generosity since 1995, that would be a change in food consumption not captured by USDA's data. However, because I am focusing on changes among middle-income families mostly above the eligibility thresholds for these programs, the effect of excluding them should be quite modest.

## Education, Childcare, and Healthcare

Up to this point, l've talked about cut-and-dried affordability. But as you can tell, I don't think that the issue here is that families literally don't have any cash to pay for necessities. Tellingly, the spending category with the fastest price growth, childcare and education at $125 \%$, also had the greatest increase in real consumption, at $68 \%$. In other words, families clearly had the money to spend on not only paying for increasingly-expensive childcare and education, but to buy a much larger quantity of these services. Since 1995, the share of school-age kids enrolled in private schools has been roughly stable despite explosive growth in charter schools competing with them. ${ }^{13}$ Meanwhile, the share of children ages 3 to 5 enrolled in preprimary programs has risen slightly from 1995 to 2015, but the share of children enrolled in full-day childcare has risen sharply, from $30 \%$ to $42 \% .{ }^{14}$ The fact that American parents appear to be buying more sessions of violin lessons, more hours of daycare, more years in private school, at a time when the prices of those things are rising at an incredible pace suggests that these middle-income households are in fact not extraordinarily cash-strapped versus previous generations of parents.

As with education, so with healthcare: price increases have been dramatic, with prices doubling from 1995 to 2015, but spending rose by even more. Real consumption of healthcare after accounting for price changes has risen nearly $20 \%$. This data probably understates the rise in healthcare consumption, since it excludes healthcare covered by various government programs like CHIP or Medicaid, or the employer's share of any payments. Combined with academic research finding that healthcare expansions do not in fact increase rates of childbearing, ${ }^{15}$ I think it's reasonable to conclude that healthcare costs are not

[^3]directly and necessarily the primary driver of delayed or prevented family formation.
There are real affordability problems facing families, like housing, as well as college costs which USDA does not consider. But on the whole, what we really see is American households making choices. When the price of clothing fell, they didn't economize on clothes to pay for something else. American households of all income brackets used that price windfall to buy more clothes. And meanwhile, the income of these households rose.

## Achievability Is a Better Metric than Affordability

So if aggregate affordability isn't the problem, what is? And if there's not actually some general shortage of cash in the household, why bother with family-supporting programs like the Child Tax Credit, or a family allowance (which I prefer to call a parenting wage)?

Affordability as a concept is a bit tricky. It requires us to make a value judgment: middle-income married Americans will spend about $\$ 260,000$ raising a kid. Is that affordable, or not? Well, it depends on who you ask!

I prefer to think about family life in terms of achievability. The question here is not, "Can families afford to have kids?" but "To what extent do families end up having the number of kids they say they want to have?" I like this heuristic because it is more compatible with a pluralist, liberal mode of government: we're not making a value judgment about what brand of lettuce you should buy or how many swimming lessons is too many. We're just measuring what you say you want, and comparing that to what you actually achieve.

According to a wide variety of surveys, the average American woman in 2018 says she wants to have around 2.3 to 2.5 children. This value has been approximately stable for 30 years. ${ }^{16}$ And yet, if current birth rates hold, the average young American woman in 2018 is only actually likely to have about I. 7 children. That's a gap of about 0.6 or 0.7 children, which is similar to saying that in a group of 10 women, instead of the 24 children they said they wanted to have, they're likely to end up with about 17 . That's 7 missing kids. That's significant.

It's also a new problem. From 1990 to 2007, the fertility gap was consistently around 0.2 children per woman, far more modest. Now, during the 1960s to 1980s, the gap was also around 0.6 or 0.7 children per woman, but that was partly because it took longer for family size desires to adjust to modern family and economic norms. Many European countries have even larger fertility gaps, but that's changing! 17 American women used to have much better fertility achievement than their European peers; now, our society is drifting into the middle of the pack, statistically speaking.

If it's not affordability per se, then what is it that's driving this deficit of births versus what families say they want? One hint comes from the USDA itself. USDA's data reflects the experience of a middleincome married family. But marriage is increasingly being postponed. Fewer and fewer women in their 20 s and 30 s are actually married.

[^4]
## No Ring, No Baby?

And it turns out, marriage is the best predictor of whether women achieve their childbearing desires or not. In longitudinal data from the National Longitudinal Surveys of Youth, for both a cohort of Boomer women and a cohort of Millennial women, the more years a woman spent married, the smaller the gap between her desired and achieved fertility. In cross-sectional data from the General Society Survey, the fertility gap is far smaller among married women. ${ }^{18}$ And, as I discussed, among married families, the cost of raising a child has not changed drastically.

If you're like me, this is all a bit depressing. Incentivizing marriage is a tricky question in a diverse society! Americans are justifiably uncomfortable with being lectured about getting hitched by anyone, especially the Federal government! So if the problem is extraordinarily delayed marriage, as seems to be the case, then policy options seem a bit limited!

But I think this reading would be a bit short-sighted, for essentially two reasons.

## Policy Options: The Marriage Penalty

First of all, the federal government already has a marriage policy. And that policy is this: working class people should not get married, but middle class and wealthy people should. This is the policy stance of the tax code, of our welfare programs, of almost everything the government does. The tax code gives you a handy marriage bonus if you have a CEO in the family, as that CEO's spouse is unlikely to earn an equivalent amount, and our tax brackets are of greatest benefit to families with the most lopsided spousal incomes. But if you're in the EITC eligibility range, getting married could reduce your benefit by thousands of dollars. If you're two working-class people with similar incomes, there's a very real tax on marriage.

Pivoting from taxes to means-tested benefits is even worse. The tax code at least makes some vague gesture at marriage-friendliness. Welfare benefits do not. Getting married can trigger the loss of tens of thousands of dollars worth of benefits ranging from housing, to food and nutrition benefits, to healthcare. ${ }^{19}$ This is true even in cases where both spouses would individually be eligible for these programs! The eligibility rules for welfare programs generally do not double the eligibility threshold for married couples, nor do they generally double the benefit size. In effect, the Federal government has put its thumb on the scales against working class marriage. ${ }^{20}$ It is perhaps no surprise then that, as the welfare state has expanded, marriage rates have been roughly steady among wealthier Americans, but have plummeted among the working class and poor.

Let's take two example working class couples to illustrate how all of this comes together: Liam and Emma, and Noah and Olivia. Let's start with Liam and Emma.

## Liam and Emma: Working-Class Family With Kids

Liam earns $\$ 24,000$, and Emma earns $\$ 20,000$. Emma has two children; let's say Liam is their father, for the sake of this example. ${ }^{21}$ Neither of them are very wealthy, but neither of them are in extreme poverty. In fact, Liam is considerably above the poverty line, while Emma's household of 3 is right at the line. They're working class. Between income, payroll, and sales taxes, Liam will pay almost $\$ 4,000$ in taxes. He makes too much money for the Earned Income Tax Credit, because the EITC is not very

[^5]generous to singles with no kids in the household. After taxes, Liam makes about $\$ 20,000$. Emma's story is different. Emma owes about $\$ 3,300$ in taxes.... But they're offset by $\$ 2,800$ of refundable child tax credits for her two children, and $\$ 5,186$ from the EITC. So Emma actually makes money on her taxes, even after accounting for her likely sales tax payments. She ends up with an aftertax income of nearly $\$ 25,000$. Combined, their after-tax incomes come to about $\$ 45,000$, which means they together get a very small net subsidy from the tax code.

Liam and Emma love each other. They've had kids together. But, for whatever reason, they're not married; let's say they're living separately as well. What happens if Liam and Emma make the jump to get married and move in together, giving their two kids a more stable, two-parent household?

Well, their income net of taxes actually falls! Their child tax credit gets more generous, rising to $\$ 4,000$, because they can claim more of the non-refundable portion. But instead of getting Emma getting over $\$ 5,000$ in EITC benefits, now they together get just $\$ 1,300$, because the EITC is calculated very differently for married households. Altogether, Liam and Emma lose $\$ 2,500$ on their taxes by getting married.

But it doesn't stop there! I also calculated Liam and Emmas SNAP benefits, Section 8 benefits, and their or their childrens' benefits under CHIP, Medicaid, or ACA premium tax credits. When they aren't married, Liam and Emma can, together, claim benefits worth over $\$ 20,000$. But when they get married, they can only claim about $\$ 12,000$ in benefits. They lose $\$ 8,000$ in means-tested benefits by getting married, thanks to program-specific eligibility and benefit rules.

Altogether, Liam and Emma's choice to give their kids a stable, married, two-parent household costs them $\$ 10,500$ every single year. That's a quarter of their pre-tax, pre-benefit income. Liam and Emma are good parents who want the best for their kids: they stay unmarried so that they can pay for school supplies and have suitable housing and put nutritious food on the table.

## Noah and Olivia: Barriers to the Success Sequence

Next we can look at Noah and Olivia. ${ }^{22}$ This couple is following what some researchers have called the "success sequence," the idea that poverty can be avoided by doing life in a certain order. They got jobs, they haven't had kids our of wedlock, and now they want to get married. Noah makes $\$ 19,000$ and Olivia makes $\$ 18,000$ : both of them are above the poverty line, but they're still far from rich. Both of them pay about $15 \%$ of their total income to taxes on income and consumption. Because they get no large credits, when they get married, their taxes are virtually identical. They have no meaningful marriage penalty in the tax code. So far, so good.

But Noah and Olivia both get some very small SNAP benefits, and they both are eligible for some not-very-small subsidized housing benefits. And, of course, they get some healthcare tax credits. Alas, when they get married, their combined income puts them above the income threshold for a two-person household to get many of their benefits. The result is that they lose over $\$ 4,000$ in benefits when they get married, or almost I5\% of their pre-tax, pre-benefit income. This means that getting married doubled their implicit tax rate. That's a compelling argument for Noah and Olivia not to get married.

These are simple examples with some crude calculations, but they illustrate that working-class marriage penalties are real and concerning.

[^6]To be clear, the problem here is not "government benefits" per se. The problem is government benefits with eligibility rules that discourage working class people from marrying each other. And the result is neighborhoods with scattered families, inconsistent fathers, overworked mothers, and diminished opportunity for children. And, additionally, fewer kids overall.

So there's a very real way to make family life more affordable. Fix the massive government bias against marriage, and especially working-class marriage. It will be costly and complicated, but it needs to be done.

## The Parenting Wage

The second response to the "marriage first" explanation for decreased family formation is to reconsider our justifications for policies like the Child Tax Credit. We don't give parents the Child Tax Credit because children are unaffordable. If that were true, the CTC would have no phase-in, and would phaseout at a lower income bracket. The justification for the Child Tax Credit is not that parents are inherently cash-strapped. The justification is that parenting is inherently valuable to society. We want to communicate that parenting is worthwhile work, that it is a dignified and worthy task. This is particularly important for a country like ours where gender egalitarianism is the expected social norm. The reality is that even in social welfare states like Sweden, many women stay home to be with kids. Society, and indeed the government, should communicate to these women, or to whomever works in the home, that their work within the home is recognized, is dignified, is seen as valuable. The social degradation of care work and home work is a catastrophe for gender equality, and ultimately sets home-makers of either sex up for entirely avoidable frustrations.

In other words, we should have a parenting wage because parenting is important work, and workers deserve to be paid. In a society where the market increasingly intrudes into our children's playtimes, our churches, and every facet of our lives, failing to provide competitive remuneration for the vital carework in the home leads to a systematic underprovision of that work. It leads to a crisis of parenting. It leads, in other words, to a demographic crisis. Personally, I hardly care whether a parenting wage comes in the form of a refundable credit or a new benefit. I only care that we, as a society, treat parents more generously than we presently do, and that we do so in a way that explicitly communicates to potential and actual parents that we see parenting as worthy, dignified, and important work.

When societies do this, when they make significant increases in the benefits provided to parents simply for the labor of having kids, birth rates rise. ${ }^{23}$ Fertility ideals do not change very much in response to policy, and thus the fertility gap tends to narrow. The change in birth rates is, to be clear, quite modest. Without a change in marital behavior, fertility rates won't rise by a lot. But they rise a bit. This is a onetwo punch: for family formation to improve in America, it's vital to tackle both marriage and childrearing. And whatever happens to fertility rates, the children who are born are born into a society of greater opportunity, healthier families, and which engages in a valuable public catechesis: parenting matters.

[^7]
## Appendix

Exhibit I:


USDA Expenditures on Children by Families reports. Inflation-adjusted using the Personal Consumption Expenditure deflator. 2008-2013 values adjusted for a methodological change. 2018 value estimated from observed inflation since 2015 .

Exhibit 2:

## Changes in Child-Related Spending and Prices by Category of Expenditure



USDA Expenditures on Children by Families, 2015 and I995. BLS Consumer Price Index, 1995-2015.

## Exhibit 3:



## Exhibit 4:



Author's calculations, numerous sources, included CDC, General Social Survey, and historic state vital records

Exhibit 5:


## Exhibit 6:

| Effect of Marriage on Example Working Class Couple Without Children | Noah | Olivia | Combined Singles | Married <br> Filing Jointly | Marriage Penalty or Bonus | As \% of Combined Pre-tax income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Taxes |  |  |  |  |  |  |
| Labor Income | \$19,000 | \$18,000 | \$37,000 | \$37,000 |  |  |
| Children | 0 | 0 | 0 | 0 |  |  |
| Total Taxes on Consumption and Income | \$2,78। | \$2,608 | \$5,388 | \$5,362 | -0.1\% |  |
| Final Income Net of All Direct Taxes | \$16,219 | \$15,392 | \$31,612 | \$31,638 | 0.1\% | Tax Code |
| Benefits |  |  |  |  |  |  |
| SNAP Voucher Benefit | \$180 | \$180 | \$360 | \$0 | -1.0\% |  |
| Section 8 Housing Benefit | \$1,800 | \$2,100 | \$3,900 | \$0 | -10.5\% |  |
| Value of All Health Benefits | \$3,072 | \$3,192 | \$6,264 | \$5,076 | -3.2\% |  |
| Value of All Counted Benefits | \$5,052 | \$5,472 | \$10,524 | \$5,076 | -14.7\% | Benefits |
| Income Net of Taxes and Benefits | \$21,271 | \$20,864 | \$42,136 | \$36,714 | -14.7\% | Total |

## Exhibit 7:



## Exhibit 8:



## Exhibit 9:




[^0]:    ${ }^{1}$ Americans Are Having Fewer Babies. They Told Us Why. Claire Miller, New York Times.
    https://www.nytimes.com/2018/07/05/upshot/americans-are-having-fewer-babies-they-told-us-why.html
    ${ }^{2}$ See Exhibit 1
    ${ }^{3}$ Expenditures on Children by Families, 2015. United States Department of Agriculture, Center for Nutrition Policy and Promotion. https://fns-prod.azureedge.net/sites/default/files/crc2015_March2017.pdf
    ${ }^{4}$ Bureau of Labor Statistics, Consumer Price Index component series

[^1]:    ${ }^{5}$ See Exhibit 2
    ${ }^{6}$ See Exhibit 7

[^2]:    ${ }^{7}$ The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Project. Raj Chetty, Nathaniel Hendren, Lawrence Katz. 2016. American Economic Review 106 (4).
    ${ }^{8}$ Higher Rent, Fewer Babies? Housing Costs and Fertility Decline. Lyman Stone. Institute for Family Studies. Oct. 11, 2018. https://ifstudies.org/blog/higher-rent-fewer-babies-housing-costs-and-fertility-decline
    ${ }^{9}$ Land Use Regulations and Fertility Rates. Daniel Shoag and Lauren Russell. https://scholar.harvard.edu/files/shoag/files/zoning_book_chapter.pdf
    ${ }^{10}$ How 'Vasectomy Zoning' Makes Childless Cities. Nolan Gray and Lyman Stone. CityLab. Jan. 28, 2019. https://www.citylab.com/perspective/2019/01/family-planning-day-care-costs-zoning-cities-children/580279/
    ${ }^{11}$ A Daycare in Every Neighborhood. Nick Zaiac. Catalyst, Independent Institute. Aug. 21, 2019. https://catalyst.independent.org/2019/08/21/a-daycare-in-every-neighborhood/
    ${ }^{12} \mathrm{~A}$ Growing Problem in Real Estate: Too Many Too Big Houses. Candace Taylor. Wall Street Journal. Mar. 21, 2019. https://www.wsj.com/articles/a-growing-problem-in-real-estate-too-many-too-big-houses-11553181782

[^3]:    ${ }^{13}$ See Exhibit 8
    ${ }^{14}$ See Exhibit 9
    ${ }^{15}$ Socialized Healthcare and Women's Fertility Decisions. Resul Cesur, Pinar Mine Gunes, Erdal Tekin, Aydogan Ulker. IZA Institute of Labor Economics. Discussion Paper No. 12186. http://ftp.iza.org/dp12186.pdf; How Does

[^4]:    Access to Health Care Affect Teen Fertility and High School Dropout Rates? Evidence from School-based Health Centers. Michael F. Lovenheim, Randall Reback, Leigh Wedenoja. NBER Working Paper No. 22030. https://www.nber.org/papers/w22030
    ${ }^{16}$ How Many Kids Do Women Want? Lyman Stone. Institute for Family Studies. Jun. 1, 2018. https://ifstudies.org/blog/how-many-kids-do-women-want
    ${ }^{17}$ The Global Fertility Gap. Lyman Stone. Institute for Family Studies. Feb. 25, 2019. https://ifstudies.org/blog/the-global-fertility-gap

[^5]:    ${ }^{18}$ No Ring, No Baby: How Marriage Trends Impact Fertility. Lyman Stone. Institute for Family Studies. Mar. 19, 2018. https://ifstudies.org/blog/no-ring-no-baby
    ${ }^{19}$ Cash for Kids: Does Public Assistance Undermine Family Life? Lyman Stone. The Public Discourse. Jun. 27, 2019. https://www.thepublicdiscourse.com/2019/06/53134/
    ${ }^{20}$ Examples of several specific benefit and tax programs are provided in the appendix
    ${ }^{21}$ See Exhibit 5 for full scenario details

[^6]:    ${ }^{22}$ See Exhibit 6 for full scenario details

[^7]:    ${ }^{23}$ Can Uncle Sam Boost American Fertility? Lyman Stone. Institute for Family Studies. Sep. 28, 2017. https://ifstudies.org/blog/can-uncle-sam-boost-american-fertility

