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What do fuel prices, the environment, and the American obesity epidemic all have in

common? Or here’s one, what cost billions of dollars each year, yet is completely overlooked by

the American electorate? No these are not the start to a bad joke; the answer is agricultural

subsidies. And despite being in place since the Land Act of 1820 and seeing little policy change

since the Great Depression, agricultural subsidies remain an area of controversy often neglected

by the American public. Agricultural subsidies have both literally and ethically polluted the

agricultural market; by not only encouraging but *rewarding* overproduction. Agricultural

subsidies have degraded our diets and been prone to scandal throughout their history. No crop

better exemplifies all the above than corn; the “poster-child” for waste and corruption in the

agricultural market. Corn is the most subsidized crop in America, therefore it is only appropriate

that it be the focus of this paper seeking to demonstrate the following. If Americans repealed

subsidies that encourage overproduction such as PLC’s and strengthened agricultural research

aimed to make food and soil more nutritious, the health of the agricultural market and consumers

would increase exponentially. Furthermore, the reason agriculture has not adapted in response to

recent research, is because millions in farm-funded lobbying and the lack of awareness when it

comes to agricultural issues.

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In order to truly examine the externalities and benefits of agricultural subsidies, it is

imperative to define what qualifies as a subsidy and what types of subsidies are currently

implemented in American policy. Agriculture is an intrinsically broad term, anything from crops,

to livestock, to national parks are considered agriculture. The word subsidy on the other hand has

a much more ridged definition; Merriam-Webster defines a subsidy as a “a grant by a

government to a private person or company to assist an enterprise deemed advantageous to the

public.” It should be starting to become clear what a broad area agricultural subsidies encompass,

any grants given to farms, parks, or agrarian research qualify as a subsidy. The USDA provides a

much better context to the type of subsidies that are the main points of debate, among such are

“Market Loss Assistance” and “Commodity Research and Promotion” (Topics). “Price Loss

Coverage” falls under the first type and is aimed to help farms from going out of business in the

event of huge market fluctuations, they seek to do this by refunding the margin farmers lose

when the value of their crop falls below a set market value. While the concept of PLC’s is noble,

it has been very poorly executed historically, with farmers taking advantage of these payments,

treating them as extra income. They do this by purposefully overproducing to increase the supply

of a given commodity in the market, thereby lowering its market value (which their

reimbursement is calculated from). Because larger farms have more land to overproduce on, they

benefit even more from this broken system, leading to a distribution of agricultural wealth

upwards and making the agricultural market a fierce environment for small farms.

Consumers receive the worst of the effects when it comes to subsidy induced

overproduction. As Doctor Mark J Eisenberg points out “agricultural subsidies are worsening

obesity trends in America” (Franck et al. 1). Agricultural subsidies are disproportionately

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awarded to crops such as corn which rate high on the glycemic index, meaning they cause more

rapid increases in blood sugar compared to other carbohydrates. Because farmers are rewarded

for producing and overproducing corn, it has become ubiquitous in grocery stores items ranging

from chewing gum to breakfast cereals. Dr. Eisenberg’s research links this saturation of corn to

the growing obesity rates in America. (4)

Many medical professionals, such as Doctor Mark J. Eisenberg, acknowledge that

“agricultural subsidies are worsening obesity trends in America” (Franck et al. 1). Eisenberg and

colleagues support this claim by analyzing how some of the most subsidized crops, such as corn,

are processed by the human body. Their research demonstrates how many corn byproducts, such

as high fructose corn syrup, do not stimulate the production of insulin, causing imbalanced blood

sugar and higher risks for obesity and diabetes. The scope of these effects is affirmed and

expanded into the realm of livestock by filmmaker Robert Kenner’s research; he provides a

firsthand look at the inhumane diets prescribed to farm animals. Kenner’s research further

demonstrates how this diet was shaped by historical agrarian practices and affirms the link

between subsidized corn and commodities eaten by consumers. However, people often point to

the research of biologists like Kevin D. Hall, which analyzes the complex “physiological and

behavioral” factors of obesity (1). Those opposed to Eisenberg’s claims believe that medical

professionals portray corn byproducts as the sole cause obesity, when in reality, the metabolic

influences on obesity are much more dynamic and complex. The underlying flaw with both sides

methods is neither consider which agricultural subsidies can or cannot being linked with obesity,

thereby not analyzing current policy in a productive way.

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It was stated earlier that corn would be a focus of this paper; partially due to the

nutritional problems isolated to corn, but mostly due to corn’s dominance in America’s

agricultural market and subsidy regime. Dr. Eisenberg’s research makes note that corn subsidies

make up the largest portion of all subsidies and are paid out to the fewest recipients (4). Corn is

the tool most used to farm subsidies because it has one of the highest yields per acre of farm land

(White 1). This low-risk high-reward quality of corn is why it has dominated everything from

food to fuel (in the form of ethyl alcohol). One of the biggest flaws with the America’s current

subsidies regime is that it encourages growing unhealthy carbohydrates as opposed to healthier

greens that take up more land and are less lucrative. If agricultural subsidies valued public

health, they would seek to subsidize the margin farmers lose by producing healthier crops that

require more land to grow, rather than rewarding the overproduction of unhealthy starches.

Unlike human consumers, livestock are the silent victims of agricultural subsidies. For

the reasons listed above America produces more corn and unhealthy carbohydrates than we

know what to do with, and while it is not certain exactly how long farmers have been feeding

corn to livestock, the research of Dr. Baocheng Zhu and colleagues demonstrates how corn diets

alter the bacterial makeup of cattle digestive systems (Guo, 14). It is common knowledge that

cows on corn diets are less healthy and have higher fat to protein ratios than cows on grass fed or

natural diets. In summary, a repeal of agricultural subsidies would not only benefit the nutritional

value of the plants and animals we eat every day. Unfortunately, the advocacy for livestock is

eclipsed by the power of corporate farming and millions of dollars in lobbing.

Yet another silent victim of agricultural subsidies is the environment. Much of the

literature on agricultural subsidies also looks at the environmental externalities, i.e. unintended

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consequences, associated with them. Those in favor of removing agricultural subsidies for the

sake of biodiversity claim, “[agricultural subsidies] remove so much risk from farming that there

is little incentive to explore alternative production methods and alternative crops and livestock

products that serve to enhance profitability and sustainability ” (Bruckner, 634). Plichman’s

research however, finds there to be an acknowledgeable risk within *any* commodity crop (9).

Furthermore, Plichman claims the difference in risk is what motivates farmers to overproduce

single crops, thus draining soils of nutrients. This is where biodiversity activists get involved;

while the effects of nutrient depleted soil may be unapparent to the average American, the effects

of such are demonstrated in Dr. Štefan Bojnec’s research. Bojnec links the “size, subsidies, and

performance” of farms in Slovenia, his research suggests that subsidies cause a measurable

decease in the health of agrarian land which correlates to a drop in productivity (7). Dr.

Lovelace’s research addresses the relationship between “ecology and the economy,” her claim is

that while our archaic subsidy system has a hand in facilitating environmental externalities, a

free market would see the same issues (7).

Under the current subsidy regime, farmers net the highest profits by producing a single

crop year after year. In nature plants are constantly moving, wind and other forces migrate seeds

and spread diversity in every ecosystem, so it should come as no shock that the artificial, static

environments we farm in, crops and soil become susceptible to problems such as nutrient

deplanement. The outrage amongst biodiversity activists is despite a knowledge of simple

changes that would benefit environmental health, many farmers are not willing to consider

making them, as they would lower their net profits. Doctor Maria-Soledad Benitez and

colleagues, have proposed crop rotation as one such solution to the problem of nutrient depletion

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in soil. Dr. Benitez’s research demonstrated that corn shoots grown in soil previously inhabiting

sunflowers and peas, had larger biomass than shoots grow in soil previously inhabiting corn or

soybeans (10). In other words, if farmers rotate different types of crops amongst their land, the

result is not only better soil quality but also healthier, more nutritious plants. Thus, allocating

some of the money from dangerous subsidies to incentivizing crop rotation amongst farmers,

would create healthier ecosystems, healthier produce, and healthier business.

Another type of agricultural subsidy, under the USDA’s definition established earlier, is

subsidized research. Common knowledge would have it, research should be subsidized as food

and nutrition should be held to a higher standard than other fields. While this is true in theory

agricultural research is compromising and focusing on the wrong things. Dr. Donald R. Davis’

research demonstrated a decrease in the nutritional value of our raw produce over the last fifty

years (8). As Dr. Davis points out, agricultural research has always focused on “yields, growth

rate and pest resistance” as opposed to nutrient density and viability (Davis 12). While

subsidized research has the potential to be beneficial, in its current state it is only hindering our

progress towards healthier foods. Genetically Modified Organisms are another controversial area

agricultural research is invested in; GMOs have been proven to contribute to the problem of

nutrient deficiency in produce, as GMOs are currently being utilized and optimized to grow

*larger* vegetables. Neither the plants, nor the soil, can supplement the nutritional requirements of

these larger vegetables we grow to keep up with demand. On many fronts agricultural research is

in a bad state; putting the interest of profit driven farmers over the dietary needs of consumers,

such a broken system has business receiving federal funding. One final example demonstrating

the absurdity of agricultural research is examined by Dr R Guy Reeve’s research, in which he

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analyses a Congress funded research project seeking to turn mosquitos into gene altering

“weapons” (1). Once again, I do concede that, unlike many other types of agricultural subsidies,

research grants have a potential to be very beneficial to public health. However, their power must

be utilized wisely, the government should award grants according to a sort of “merit” gaged by

how beneficial said research would be to consumer health. If we made such a change, huge

advances could be made towards creating healthier food for our growing population.

One might question why policy regarding agricultural subsidies has seen such minimal

change; this stagnancy is rooted in the rhetoric around agricultural subsidies. The debate over

whether or not agricultural subsidies belong in America’s *modern* agricultural market, is most

accurately characterized by two dominant groups. On one side are conservative economists who

argue the externalities, i.e. unintended consequences, of an archaic subsidy regime demonstrate

the need to remove them from the annual budget. Opposing this view are lobbyists who claim

that agricultural subsidies are both historically and economically justified; in both cases those

involved in the debate want to see our current, post-depression agricultural policy changed.

However, both sides push for all-or-nothing reform, and with few attempts at compromise by

both parties it is clear that unless the discussion around agrarian policy changes, the market will

be bound to the cyclical and self-destructive subsidies in place currently.

Joel Salatin put it best, when it comes to agricultural subsidies America’s been “hitting

the bull’s-eye of the wrong target” (Kenner). Our lack of attention to the government’s

involvement in the agricultural market has caused a snowball effect in which, corn became the

most lucrative crop for farmers to produce, supermarkets became potent with corn by-products,

livestock grew less nutritious on corn diets, etc. All these effects are ignored by the American

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public and concealed by thousands of dollars in farm campaigns, but the effects are catching up

to us. Agricultural subsidies have shaped modern farming practices into a beast, ferociously

consuming arable soil, extorting the government, and slowly overtaking our dinner tables. Once

good intentions have now become a tragedy. But not all hope is lost, if America was to make a

repeal corn subsidies and PLC’s the market would flourish: it would become easier for small

farmers to enter, livestock and consumers would become more nourished, and the quality of

arable farmlands across the country would become rejuvenated. But repeal alone is not enough to

undo this mess seventy plus years in the making, a fraction of the billions annually being spent

on corn should go towards incentives for farmers to grow healthier produce and conserve soil

nutrient levels. This all may sound like speculation, but many countries have already undergone

this very same reformation. A Yale case study examines the effects of New Zealand’s removal of

agricultural subsidies;

Immediately after dismantling its subsidy regime, farmers were afraid and furious,

marching on the capitol in protest. However, despite predictions that 10 percent of its

farms would go bankrupt, New Zealand retained 99 percent of its farms. Herds were

consolidated, and breeds that reflected market demand—producing leaner milk, for

instance—rose to prominence. And benefits to the land were dramatic. Pesticide use

declined by 50 percent. Soil erosion, land clearing, and overstocking also declined. The

entire agricultural sector was forced to shift toward better practices that increased

efficiency and yield. Livestock farming, previously stimulated by output subsidies, was

curbed and, for the most part, relocated away from erodible hillsides to more sustainable

pastures. (Removal of…)

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The list of benefits is innumerable; however, it is up to the American electorate to remove

agricultural subsidies from policy.