

Labor & Epidemics

Why look at works and working conditions?

- Market: *“an actual or nominal place where forces of demand and supply operate, and where buyers and sellers interact (directly or through intermediaries) to trade goods, services, or contracts, or instruments.”*
- The “good” that is exchanged in the labor market is very special
 - Prudently called *labor services*
 - It is actually *life time*
 - Sellers are workers: they sell a number of living hours that are put under the will of the buyer (the employer)
 - Largely lose their freedom of use of this time
 - In exchange, they receive a wage: *“the price of labor services”*

Why look at works and working conditions?

- A person's work is typically a part of his/her identity.
- A work is a part of his/her life goal.
- He/she has to spend many hours in a day to work, so his/her working condition is a crucial determinant of his/her physical and mental health.
- A workplace is where he/she, as a human, socializes.
- Etc..

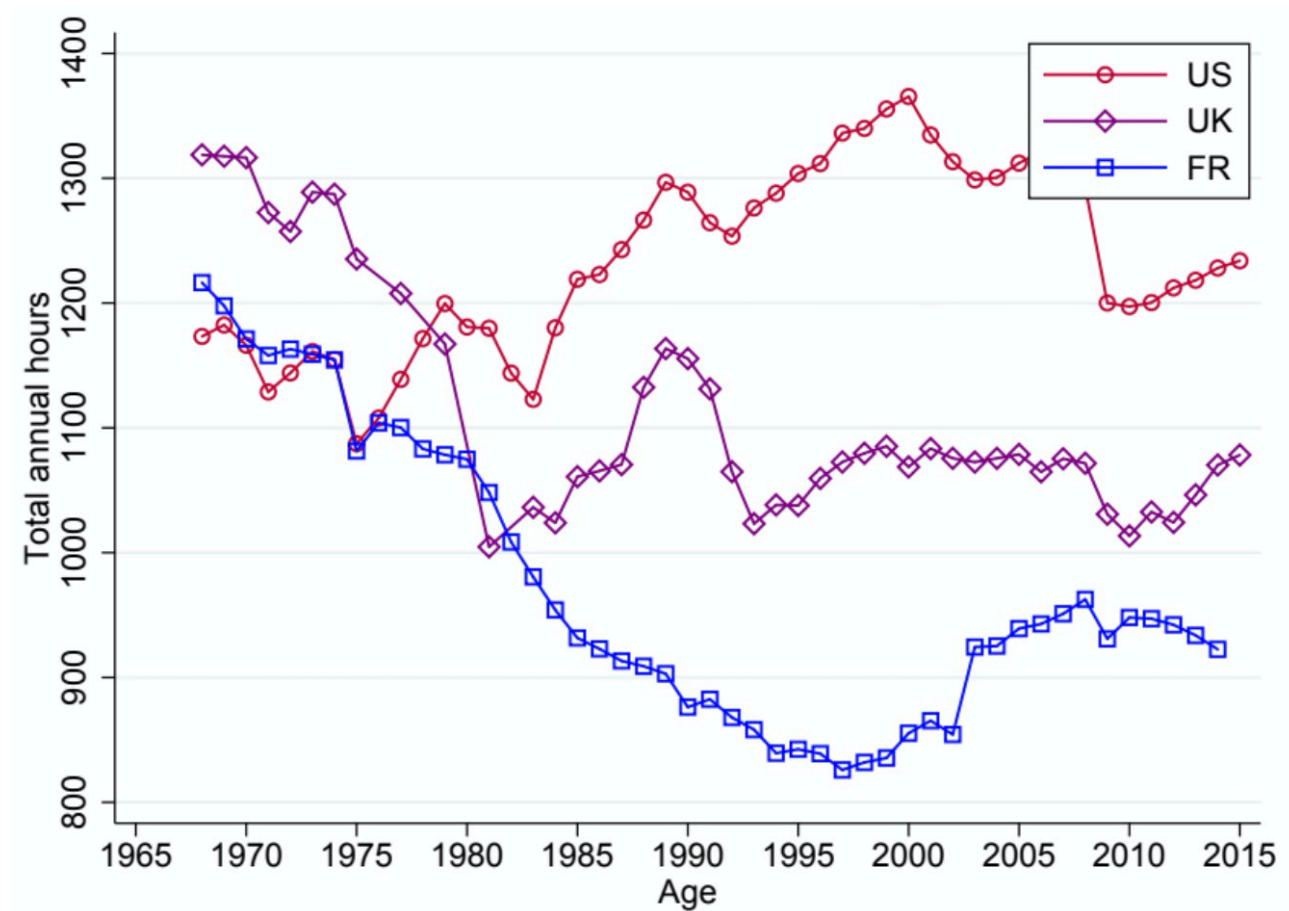
Work is not a commodity like any other

- The employment relationship is not an exchange between job-seeker and job providers in a market in the usual meaning...
- labor relations are not exchange of commodities
- Economic history of labor = a long process of transformation of all the contextual, institutional, and social characteristics that are necessary to define work, the working relationship, and the exchange of work.
- Commodification of labor

Quantitative importance of labor

- labor income is a large fraction of the GDP
 - Around $\frac{2}{3}$ in Western Europe, $\frac{1}{2}$ in Thailand
- Working time is a large fraction of (awake) living time
 - Contractual weekly hours in France: 35. Maximal hours for a day: 10. Maximum weekly hours over long periods: 44
 - In Thailand, 48 hours. Maximal hours for a day: 12.
 - 40% of week day time, 30% of working weekly time, 28% of yearly time
 - If you sleep 8 hours a night, 60% of awoken week day time
 - Maximum hours: much larger fraction

But working time shared unequally across and within countries



Source: Blundell, Bozio, and Laroque (2011), updated graph (2016)

Labor Issues

- Poor working conditions



Labor Issues

- Child labor



Labor Issues

- Long working hour



Labor Issues

- Low wage and poor welfare



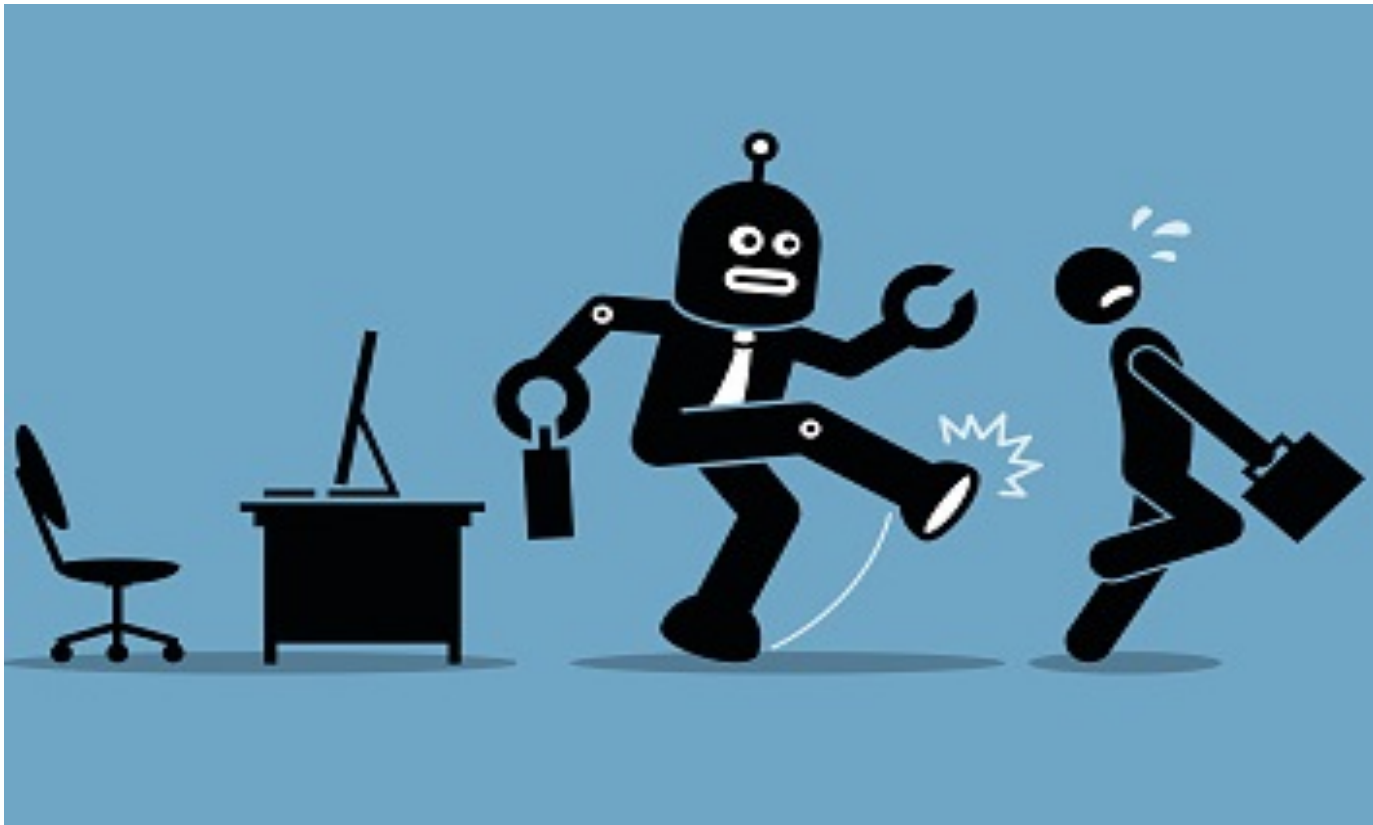
Labor Issues

- Unemployment



Labor Issues

- Job loss due to technological advancement



Labor Issues



- Uncertain status
- 1. “Uberization”: individuals are like mini-firms
 - Made possible by Information and Communication Technologies (ICT).
 - May reduce costs
 - Paid for an output that can be achieved by one or small group of people
 - \neq standard labor because no control on how time is used.
 - And remuneration is only provided in exchange of output
 - Maximal incentives
 - Limited protection against economic risks (e.g. no social security)
 - Weakening of the least productive individuals

Labor Issues

- Law as an obstacle for works



Labor Issues

- And many more issues!!!

Working condition as a Cause of Covid-19



- <https://www.bbc.com/worklife/article/20200324-covid-19-the-ways-viruses-can-spread-in-offices>
- In other words, many of the high-touch areas in your office could be vectors for the spread of virus.
- places such as refrigerators, drawer handles, faucet handles, push-out exit doors and coffee pots tend to have the highest concentrations of germs.

Working condition as a Cause of Covid-19

Workplace coronavirus transmission driving Victorian case numbers, including in aged care

Posted Sun 19 Jul 2020 at 11:27am, updated Sun 19 Jul 2020 at 9:30pm



Health Minister Jenny Mikakos says outbreaks have been linked to staff working across multiple aged care facilities.

- <https://www.abc.net.au/news/2020-07-19/workplace-coronavirus-transmission-in-victoria-in-aged-care/12470704>
- "Workplace settings, sometimes with very large workforces who have to be in very close proximity, they can amplify the transmission,"

Working condition as a Cause of Covid-19

Philippines says workplace transmission main reason behind COVID-19 surge



- <https://www.arabnews.com/node/1715836/world>
- “We saw that the most critical areas right now are the workplace, economic hubs, and industries because of the workers’ lack of training on public safety and minimum health standards,”
- “grave violations” have been observed by officials in terms of “minimum health standards” at canteens and in smoking areas.

Working condition as a Cause of Covid-19

NEWS

Reality Check

Coronavirus: Why have there been so many outbreaks in meat processing plants?

By Anthony Reuben
BBC Reality Check

🕒 23 June 2020



- <https://www.bbc.com/news/53137613>
- "Factories and, in particular, indoor areas which are cold and damp, are perfect environments for coronavirus to linger and spread,"
- Another possible factor in these refrigerated workplaces is noisy machinery, which requires people to talk more loudly or shout, which can increase the spread of infected droplets.
- "When you have people standing right next to each other working heavily - because of course this is a difficult job - and breathing heavily, you have a chance for spreading virus from just one infected individual to many that are in close proximity,"

Working condition as a Cause of Covid-19



- "Some of these factories have on-site or nearby accommodation where there are several people in each dormitory. They may be transported on a bus to the site of work, and they will be indoors together all day,"
- plants often employ migrant workers who may not be entitled to full sick pay, so could lose money if they self-isolate after getting sick.

Working condition as a Cause of Covid-19

Los Angeles Apparel Factory Shut Down After More Than 300 Coronavirus Cases

The company's chief executive, Dov Charney, had staged a professional comeback by making masks. Four workers have died from the virus.



- On June 19, a concerned healthcare provider notified county health officials of a possible outbreak at the garment factory
- When inspectors visited the factory on June 26, they observed multiple violations of physical distancing requirements and infection control protocols, including the use of cardboard as a barrier between the workers
- Charney fiercely disputed the allegations from the health department, saying officials are operating in "bad faith" and "looking for scapegoats," and suggested the decision to shut down the factory was "political."

Working condition as a Cause of Covid-19

- Charney... insisted that the company was not told the material did not comply with health orders. Instead, he blamed health officials for what he described as a lack of clear instruction for employers to keep workers safe, calling it "poor practices on their part."
- "Absolutely, we brought in new employees," Charney said. "What company can't hire new employees? No one said do not hire new employees."
- And while Charney blamed the county for a lack of testing and contact tracing, he said the company would be working with officials to reopen the factory again.

Working conditions, Haiti revolution, and the Yellow Fever

- Late 1804: Jean-Jacques Dessalines – a leader of the largest insurrection of all slaves rebellions – declared Haiti an independent nation
- Losing Haiti – “Saint-Domingue” – Napoleon abandoned his vision of French empire in the Americas



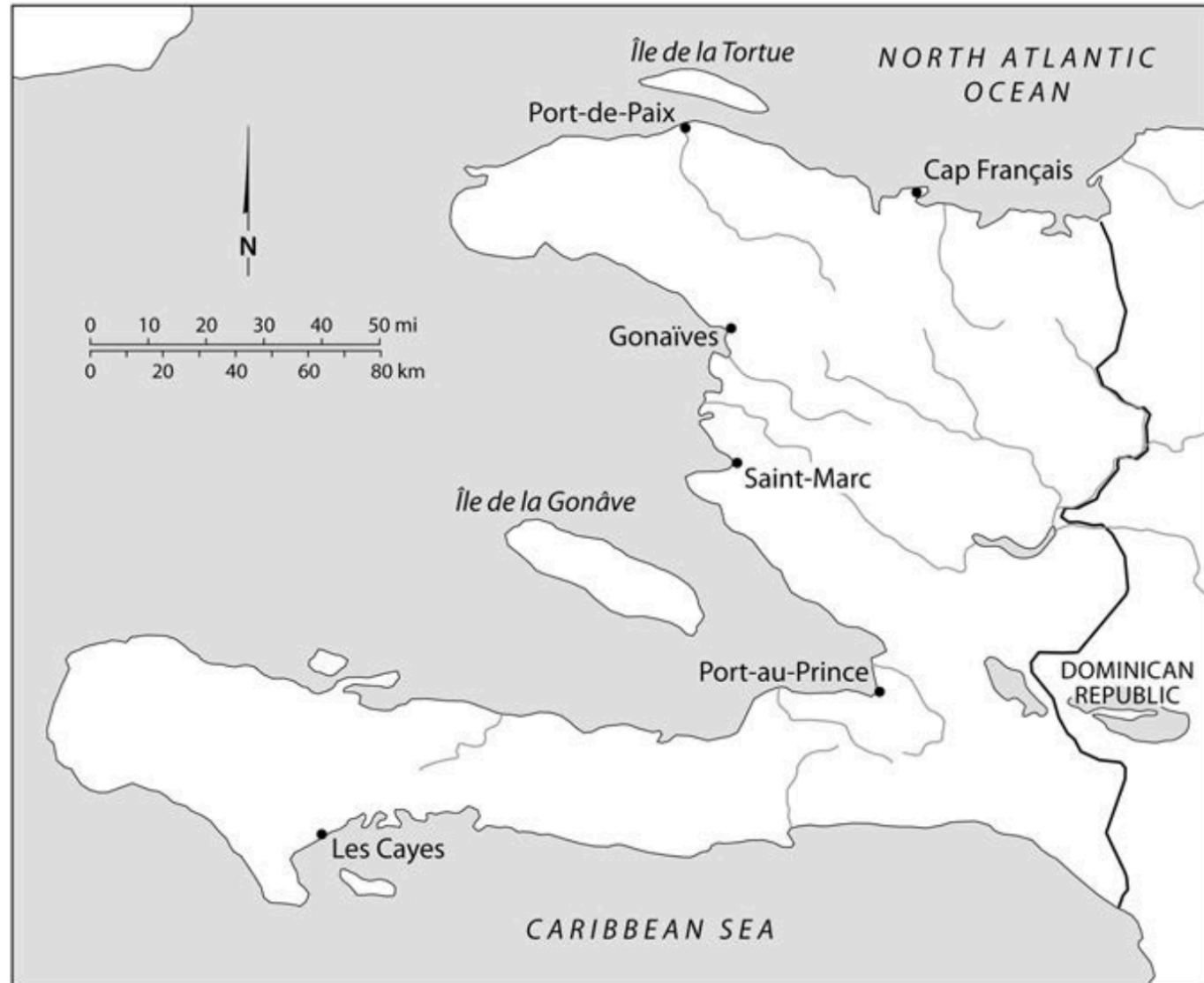


Figure 8.1. Haiti (at independence, 1804), where Napoleon's army was ravaged by the yellow fever epidemic of 1802–1803. (Map drawn by Bill Nelson.)

Saint-Domingue

- Vital foundation of French wealth and economic growth
- 8000 plantations required a workforce of African slaves to produce sugar, coffee, cotton, tobacco, indigo, and cacao.
- Ship to Marseille, Nantes, and Bordeaux
- World's wealthiest colony – "*Paris of the Antilles*"

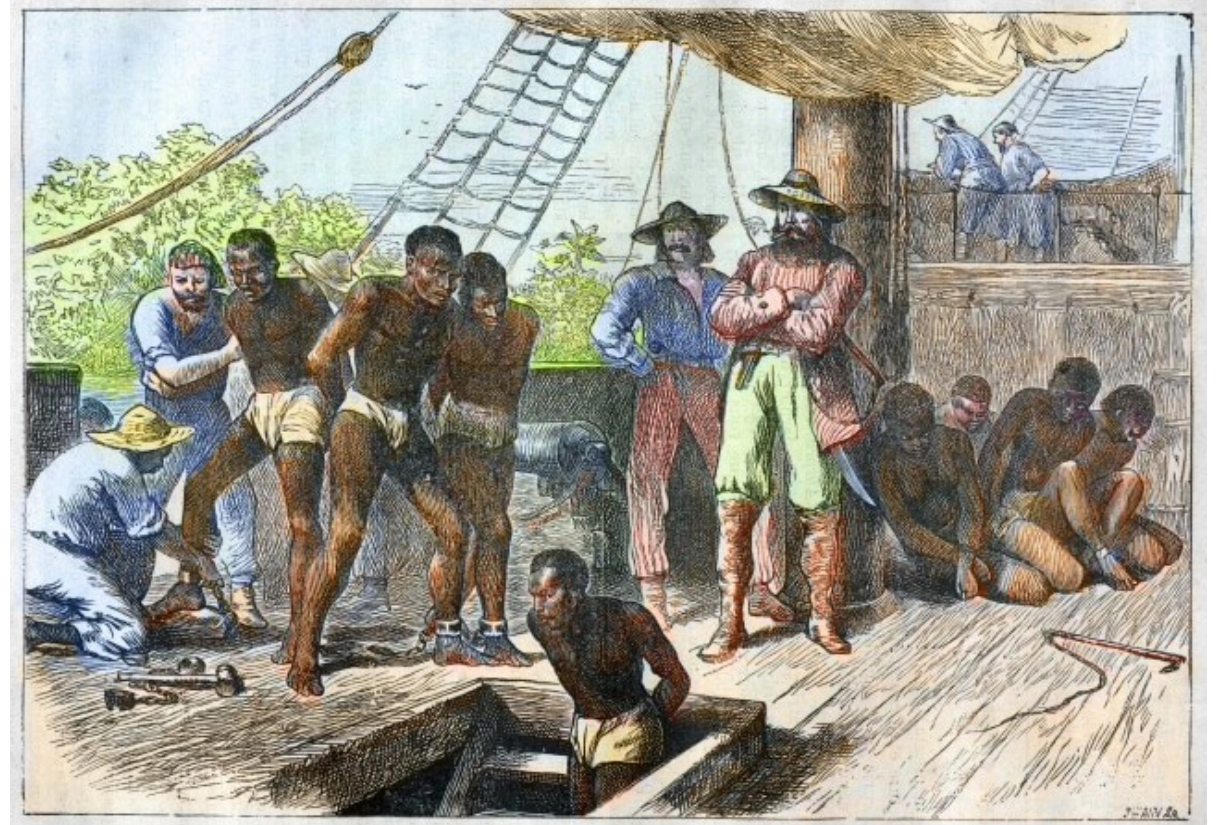
Explosive contradiction

- An acre of land on a Saint-Domingue plantation yielded more wealth than an acre anywhere on earth
- Yet, can be said that it is the highest concentration of *human misery*
- Whipping, shackles, imprisonment, rape, and branding.
- **It was more economical to replace slave than to provide humane living standards**
- Absentee owners: managers focused on short-term profit over long-term stability – slaves would die 5 years after disembarking at Le Cap



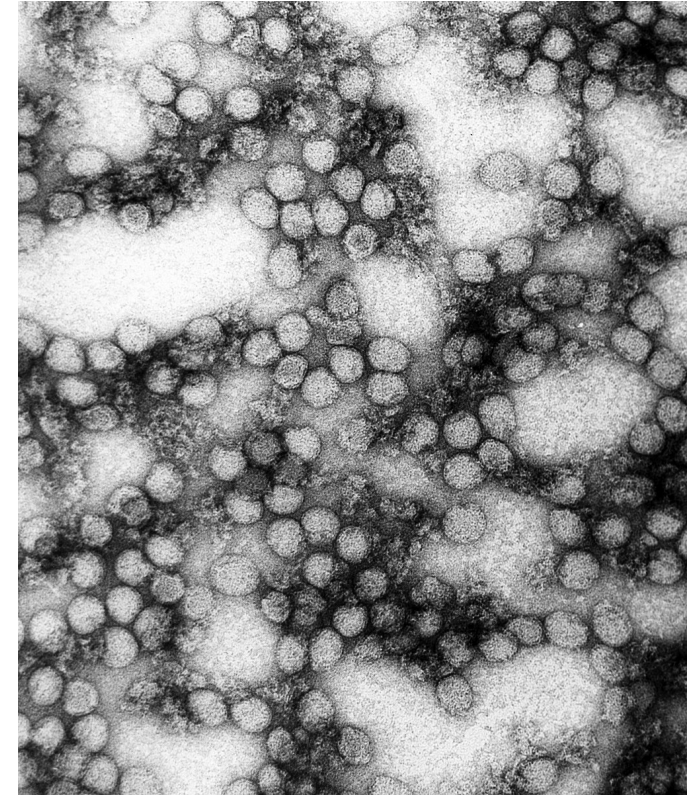
Explosive contradiction

- Deaths regularly exceeds births so that the growth of slave population depended on the continual arrival of ships from Africa.
- This high death rate resulted from overwork, accidents, deficient diet, crowding, filth, and disease – particularly dysentery, typhoid
- Rarely, the death was caused by yellow fever



“Bitter Sugar”

- Various names: *bronze john*, *black vomit*, *malignant fever*, *Siam sickness* & *yellow jack*
- First arrived from West and Central Africa through slave trade
- Carrier: *Aedes Aegypti*
- Slaves and mosquitoes were reservoirs – ships serving as super vectors, changing the history of west indies



“Bitter Sugar”

- Sugar cultivation transformed Saint-Domingue’s ecology
- Created a paradise for microbes and *Aedes Aegypti* through many operations
 1. Forest clearing: reducing the number of birds that kept the mosquitoes in check
 2. Deforestation: led to marshes
 3. Planting and cultivation of sugar: containers, cisterns, barrels, pots
 4. Estates: *Aedes Aegypti* only feed on human

Slave's immunity

- Slaves of African birth are often immune to yellow fever
 - They contracted the disease as children
 - Alternatively, people who previously from dengue fever enjoyed crossover resistance
 - They have genetic immunity
- Growth of the economy → supply of immunologically naïve Europeans
- For Europeans, the Caribbean islands were notoriously unhealthy

Slave's immunity

- This dictates how the economy is arranged in Saint-Domingue
- Import plantation laborers from Africa rather than relying on impoverished Europeans or Native Americans
- *Leading to social tensions that led to revolts*
- And, it drove the violent yellow fever epidemics that periodically swept the European population in the Caribbean

Social tensions

- Brutality → slave resistance
- Guillaume Raynal's "*new Spartacus*" or French abolitionist Comte de Mirabeau's "*volcano Vesuvius*"
- Slave resistance took a variety of forms: Individual insubordination, counterviolence, the circulation of subversive ideas, formation of "maroons", and collective actions
- Unlike the American south, plantation slaves of around 500,000 makes up the majority of Saint-Domingue's population
 - By the fall of the bastille in 1789, 700,000 slaves lived in the whole of united states
 - 500,000 in Saint-Domingue – the size of Massachusetts

Social tensions



- Ideas spread easily since plantations were labor intensive
- Demography and work patterns therefore provided a potential for successful rebellion
- The majority of slaves had not been “*broken*”
 - Did not regard slavery as natural or permanent
 - Born in Africa and remembered life before servitude
- “Saint-Domingue had achieved an unhappy primacy as ‘the most extreme and concentrated slave system that had ever existed’”
- **Stark choice: submission or rebellion**

Slave rebellion

- The rebellion was under the leadership of Toussaint Louverture – the black Spartacus.
- The insurgents had a larger vision encompassing general emancipation and independence from France.
- Free was “the most precious asset a man may possess.”



Slave rebellion

The historian Laurent Dubois writes

“The insurgents were enormously diverse – women and men, African-born and creole, overseer and fieldworkers, slaves on mountain coffee plantations and sugar plantations... Using violence against a violent system... During the first eight days of the insurrection they destroyed 184 plantations... By the end of September there were... up to 80,000 in the insurgent camps.”



Napoleon's War to restore slavery

- But Napoleon want to crush the rebellion by force and restore slavery
- General Charles Leclerc, Napoleon's Brother in-law, was sent to fight in Saint-Domingue.
- Leclerc landed at Le Cap on February 1802



The French Army Destroyed

- Louverture's crucial insight was that victory depended on avoiding a pitched battle with Leclerc's army in 2-3 months between its landing and the onset of the summer rainy season.
- He knew full well that newly arrived Europeans perished of yellow fever every summer.
- Louverture, agreeing to meet the French to negotiate a possible settlements, was betrayed and captured.
- He died in 1803.
- However, Dessalines who replaced him as a leader followed his strategy.

The French Army Destroyed

- It is estimated that Napoleon dispatched 65,000 troops in success waves
- 55,000 died with 35,000 to 45,000 of these deaths caused by yellow fever.
- The virulence was extraordinary
- Two stages of yellow fever
 1. Chills and high fevers, headache, nausea and fatigue: recover after 3 days
 2. Several cases: full intensity attack – high temp and chills, black vomit, diarrhea, tormenting headache, yellow skin due to jaundice, hemorrhages from nose, mouth, and anus...
- CFR of 15-50%

The French Army Destroyed

- But btw 1802-1803, CFR of 70%...
- Why?
 1. Mutation of the virus?
 2. “Virgin soil epidemic”?
 3. Age & gender
 - Flavivirus prefer robust young adults
 - And males due to sensors of *Aedes aegypti*
 4. Exhausting physical toils

The French Army Destroyed

- In November 1802, Leclerc died of yellow fever
- The war went on for about a year before the French completely lost
- Dessalines officially declared the former colony's independence, renaming it "Haiti"
- Haiti was the second independent country in the Americas (after the U.S.) and the first successful slave revolt in the world.

Impacts on Slavery

- Even though slavery in Haiti was not totally abolished after the independence
 - Dessalines still newly freed slaves to remain on plantations
- The revolution clearly contributed to some changes in slavery
 - Dessalines' successor was King Henry Christophe, another general in the revolution.
 - During his time, workers received some wages; they could rent their own lands; they could make complaints about working condition; they sometimes had choices about where to work
- Because of this, some credits must go to yellow fever.