

# Final Project Presentation

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Analysis of OASDI and SSI Data  
(Spending and Beneficiaries)

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HCDE DATA 512, Fall 2018

# Introduction

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OASDI stands for **Old-Age, Survivors, Disability Insurance**. It is part of **Social Security Disability program**. It is provided as support to people who are retired and families (dependent spouses and children) of ***workers*** who have died. Additional details on its history can be found here on Wikipedia - [https://en.wikipedia.org/wiki/Social\\_Security\\_\(United\\_States\)](https://en.wikipedia.org/wiki/Social_Security_(United_States))

SSI stands for **Supplemental Security Income**. It is part of Social Security and involves monthly payment as support to people with limited income and people who are ***disabled, blind*** or ***aged 65 years and above***. Additional details about SSI can be found here - <https://www.ssa.gov/ssi/text-over-ussi.htm>

Both programs are administered by **Social Security Administration (SSA)** - <https://www.ssa.gov/>

# Data

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- Each year congressional reports are published with information of SSI and OASDI payments made by each state. This report includes information about no. of recipients in each category and the total payments made for each state. Reports for years 2013, 2014, 2015, 2016 and 2017 has been used for analysis
  - OASDI Categories – *Retired Workers* and *Families*
  - SSI Categories – *Aged, Blind* and *Disabled*
- Population data for US for the years 2013, 2014, 2015, 2016 and 2017.

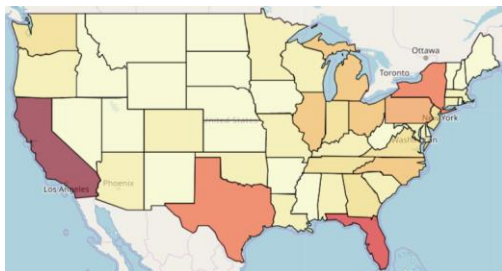
# Motivation

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- Understand the distribution of people benefiting from OASDI and SSI across US.
- Identify any trends in spending (if present).

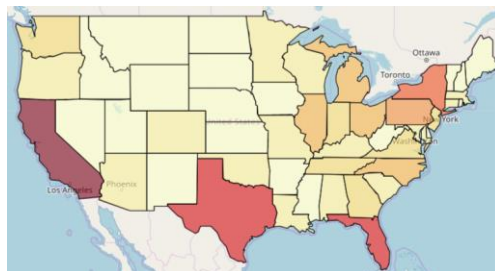
# Results – Distribution of Total Spending - OASDI

(1) No Major Trend

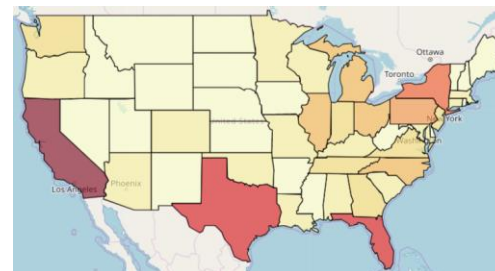


2013

(2) Aligns with Population



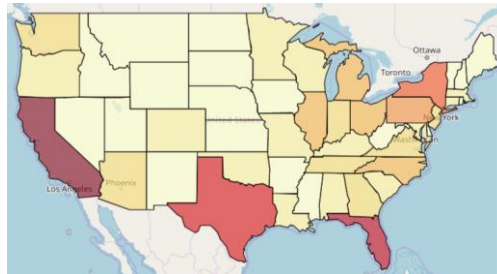
2014



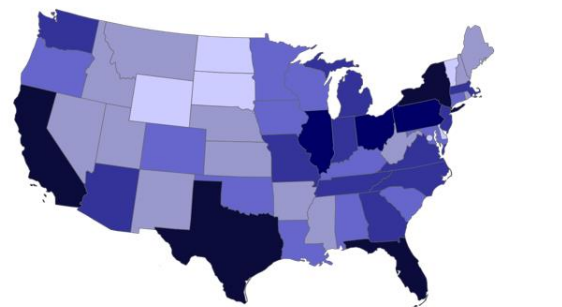
2015



2016



2017



US Population

Source: [Wikipedia](https://en.wikipedia.org/wiki/United_States_population)



Low



High

# Results – Distribution of Total Spending - SSI

(1) No Major Trend



2013

(2) Aligns with Population



2014

(3) CA the only High Spender



2015



2016



2017

Low  High

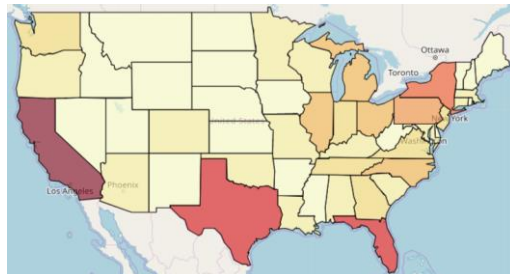
# Results – Distribution of Total Beneficiaries - OASDI

(1) No Major Trend

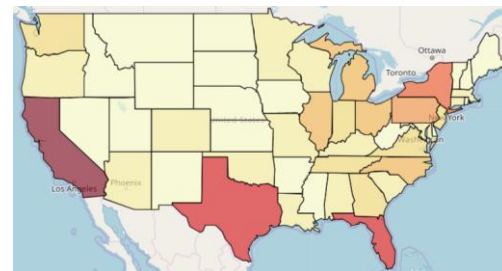


2013

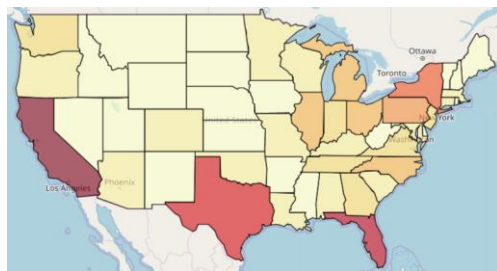
(2) Aligns with Population



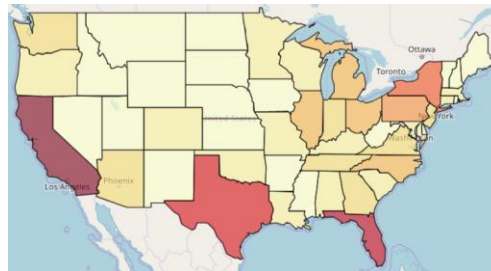
2014



2015



2016



2017

Low



High

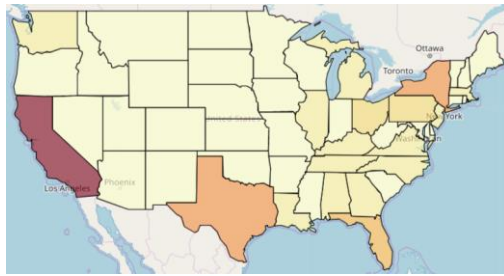
# Results – Distribution of Total Beneficiaries - SSI

(1) No Major Trend



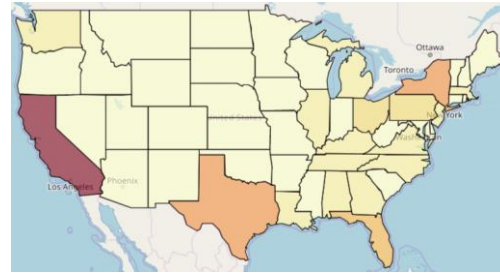
2013

(2) Aligns with Population



2014

(3) CA the only High Spender



2015



2016



2017

Low



High



# Results – Avg Increase in Spending per Person - OASDI

(1) Top Spenders don't feature in Top 10

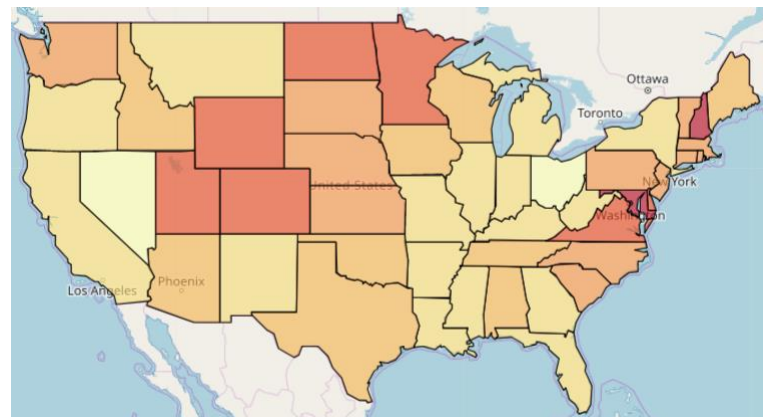
(2) Doesn't align with population

Top 10

state	avg_inc
DC	33.0
NH	32.0
MD	32.0
DE	31.0
MN	31.0
WY	30.0
UT	30.0
VA	30.0
ND	30.0
CO	30.0

Bottom 10

state	avg_inc
NV	23.0
OH	24.0
MS	25.0
WV	25.0
LA	25.0
KY	25.0
NY	25.0
GA	25.0
CA	25.0
AR	25.0



23 USD

33 USD

Figures are in USD

# Results – Avg Increase in Spending per Person - SSI

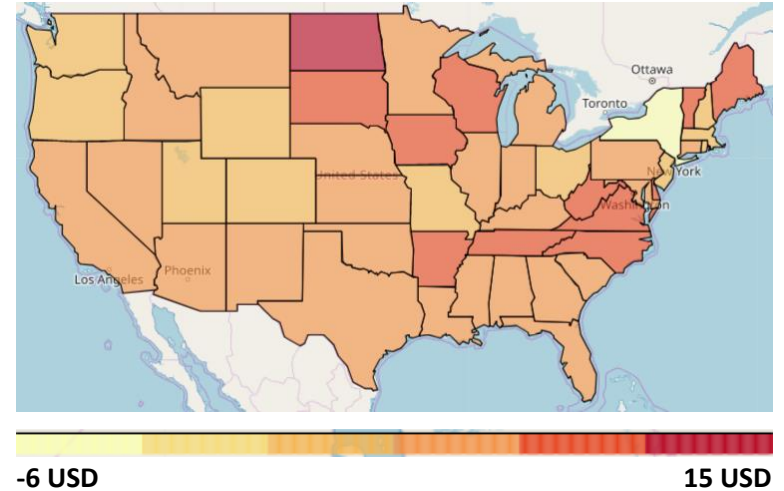
(1) Almost even across states    (2) Doesn't align with population    (3) NY the only state with decrease

## Top 10

state	avg_inc
ND	15.0
NC	9.0
WV	9.0
DE	8.0
IA	8.0
SD	8.0
ME	8.0
TN	8.0
DC	8.0
VA	8.0

## Bottom 10

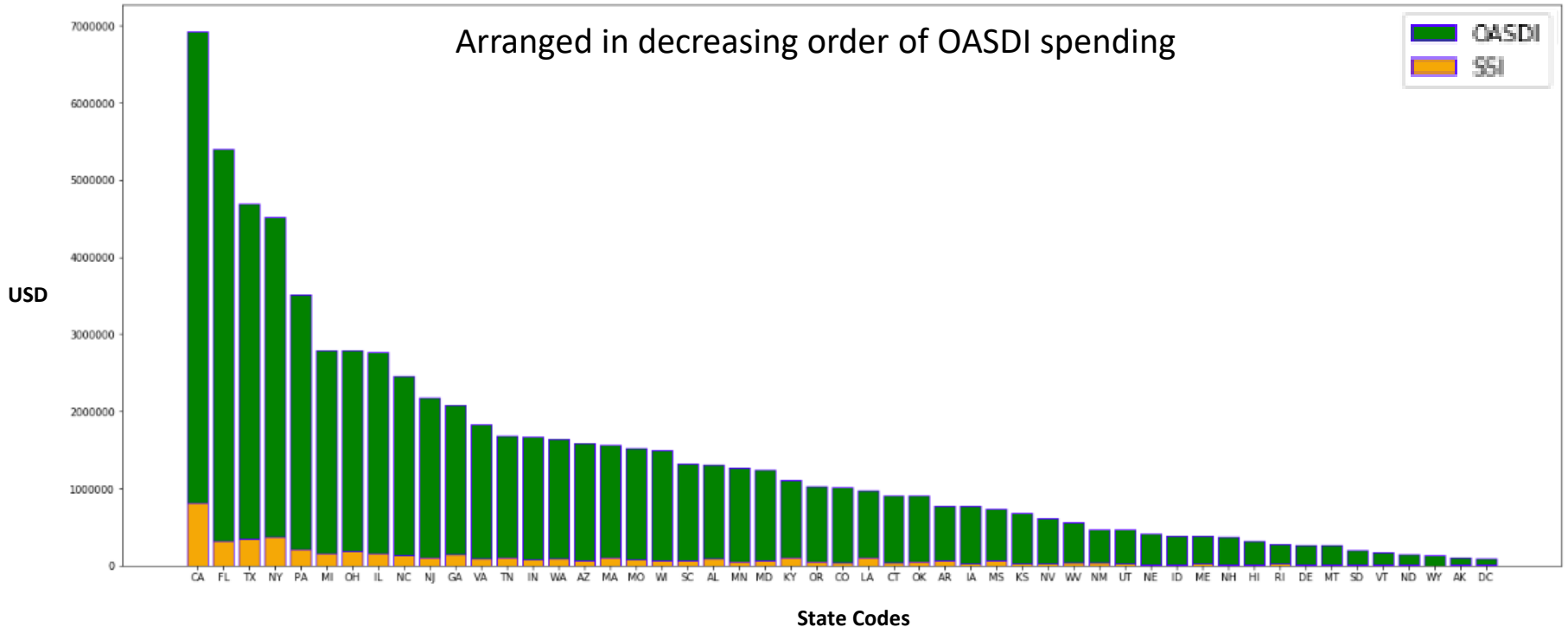
state	avg_inc
NY	-6.0
HI	0.0
RI	2.0
OH	3.0
UT	3.0
OR	3.0
WY	4.0
NH	4.0
WA	4.0
CO	4.0



Figures are in USD

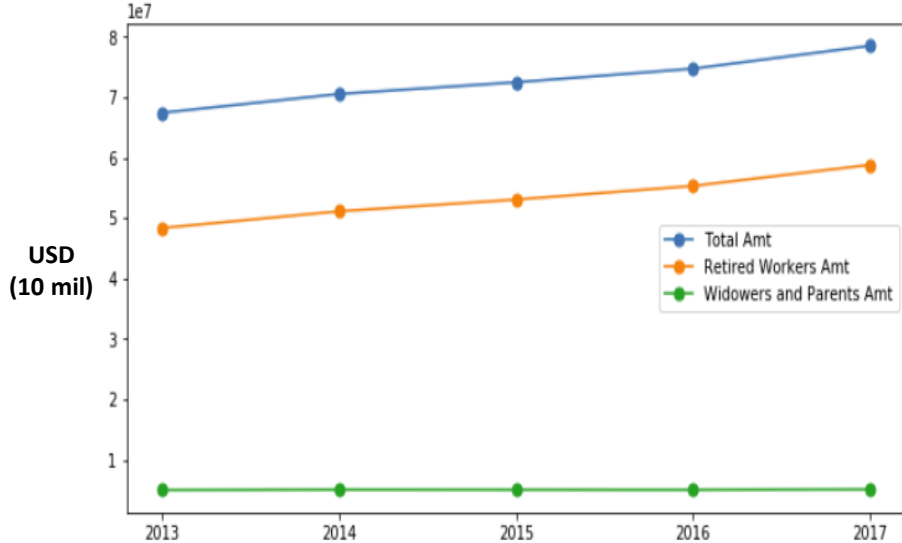
# Results – OASDI vs. SSI spending

(1) SSI is a small fraction of OASDI spending



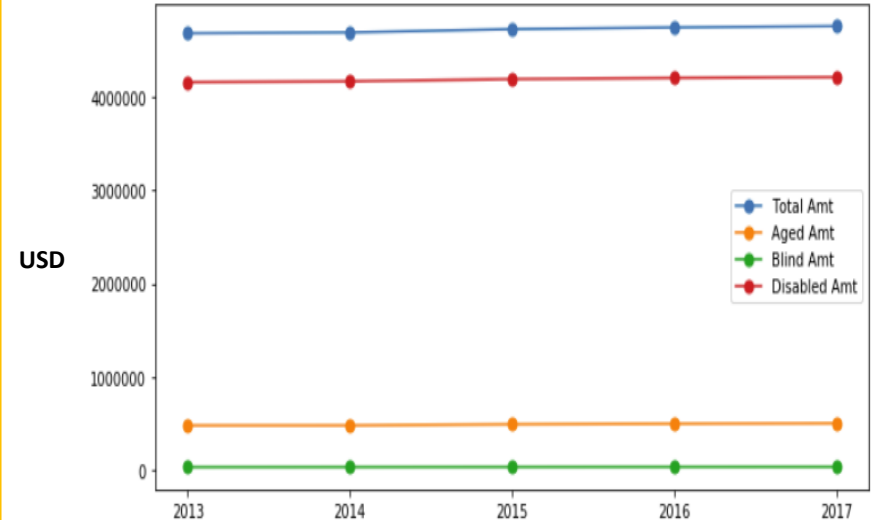
# Results – Category-Wise spending trend across years

## OASDI



(1) Retired Workers get the lion's share

## SSI

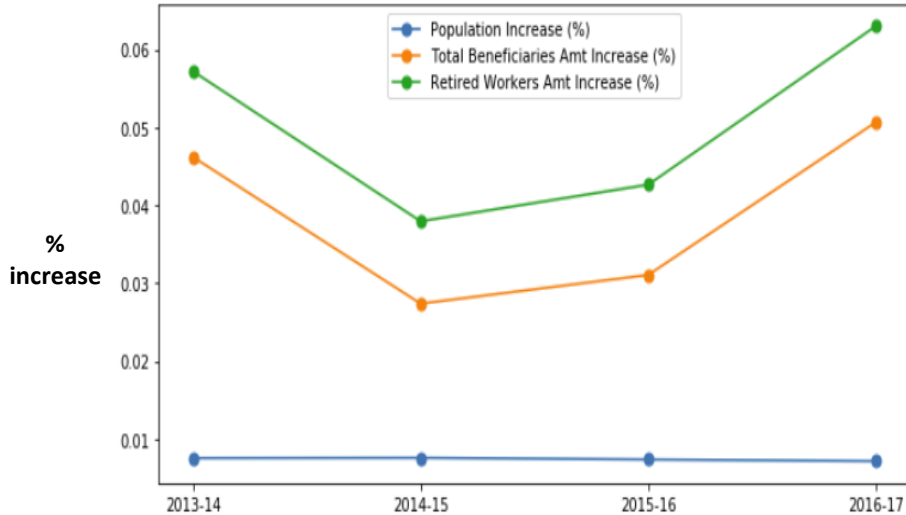


(1) Disabled category gets the lion's share

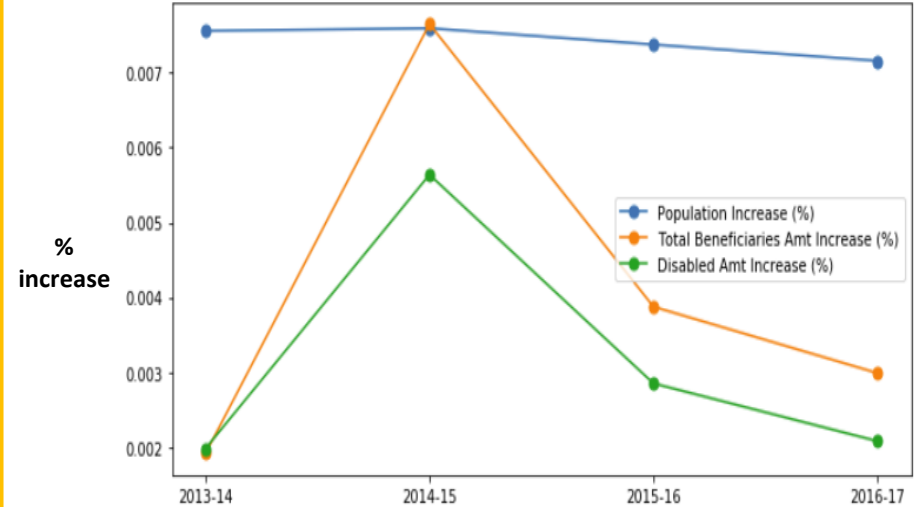
# Results – Spending increase vs. Population increase

% Increase in both

OASDI



SSI



(1) OASDI increasing (2) More Retired Workers?

(1) SSI decreasing (2) Fewer Disabled People?

# Conclusion

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- SSI spending is small fraction of OASDI spending.
- At high level, the spending and beneficiaries per state appear to correlate positively with state's population.
- The analysis raises more questions which needs further analysis based on additional data.