



***Modern companies understand their  
customers very well***





***Governments, especially in Developing Countries, much less so.***

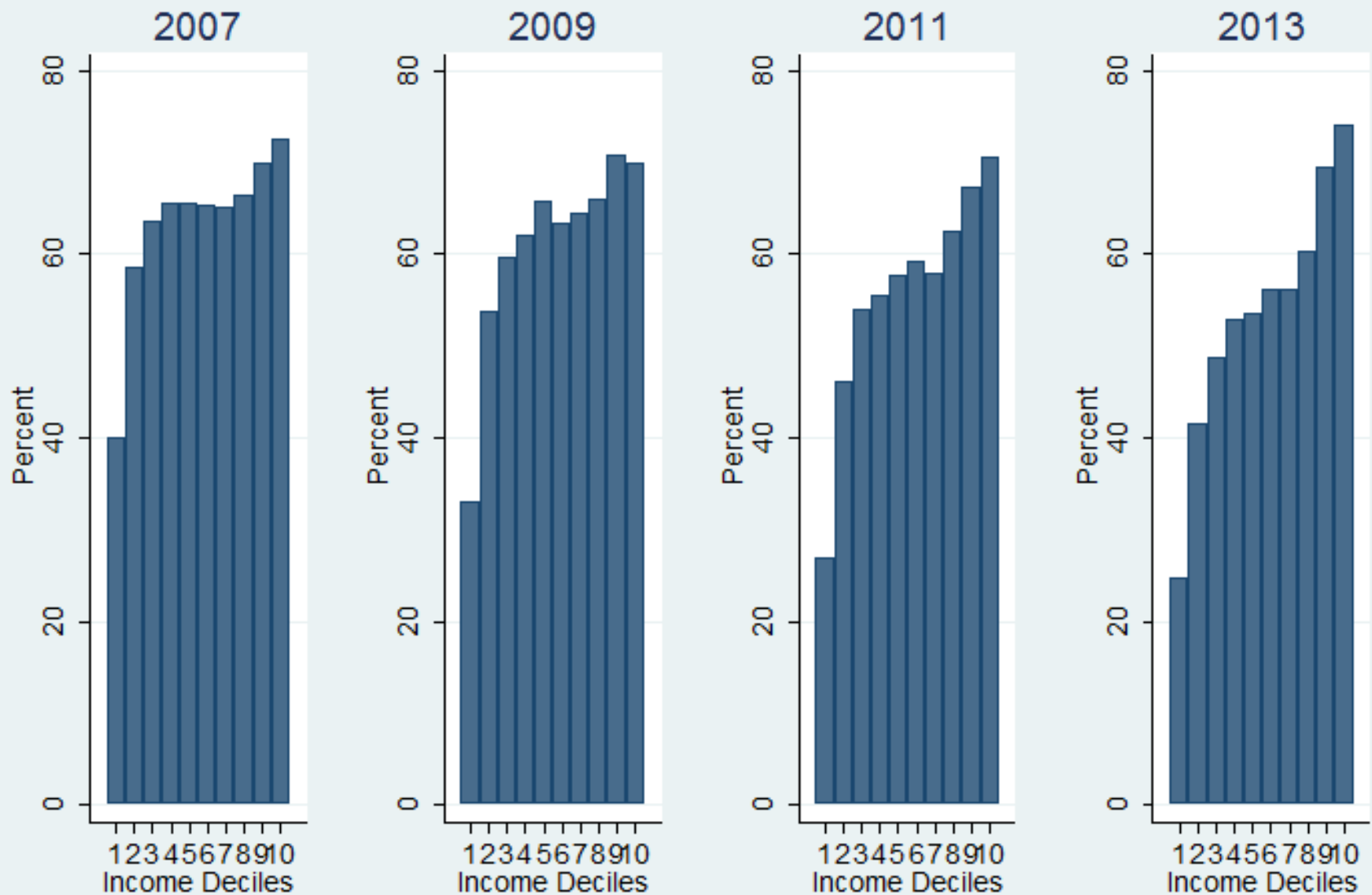
***(What can big data add to the story?)***

***Example using Thai National Statistics Office SES data***



# Big Data and Banking

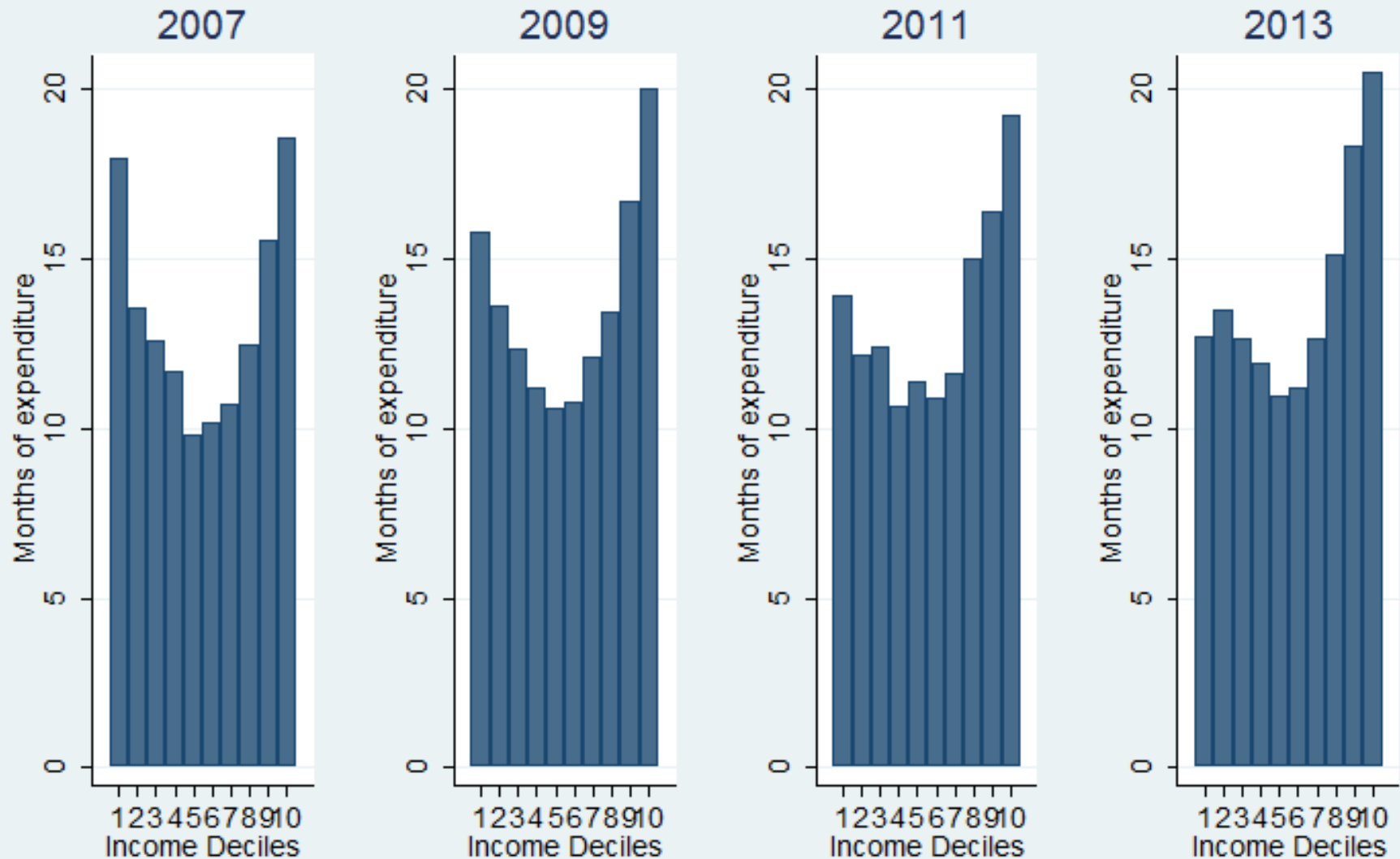
# Whether household has debt in present



**Although Household debt is still high in Thailand, the problem is declining except for the wealthiest deciles. (This may make aggregate levels look high since wealthy households borrow much more.)**

# Amount of Debt Relative to Monthly Cash Expenditure

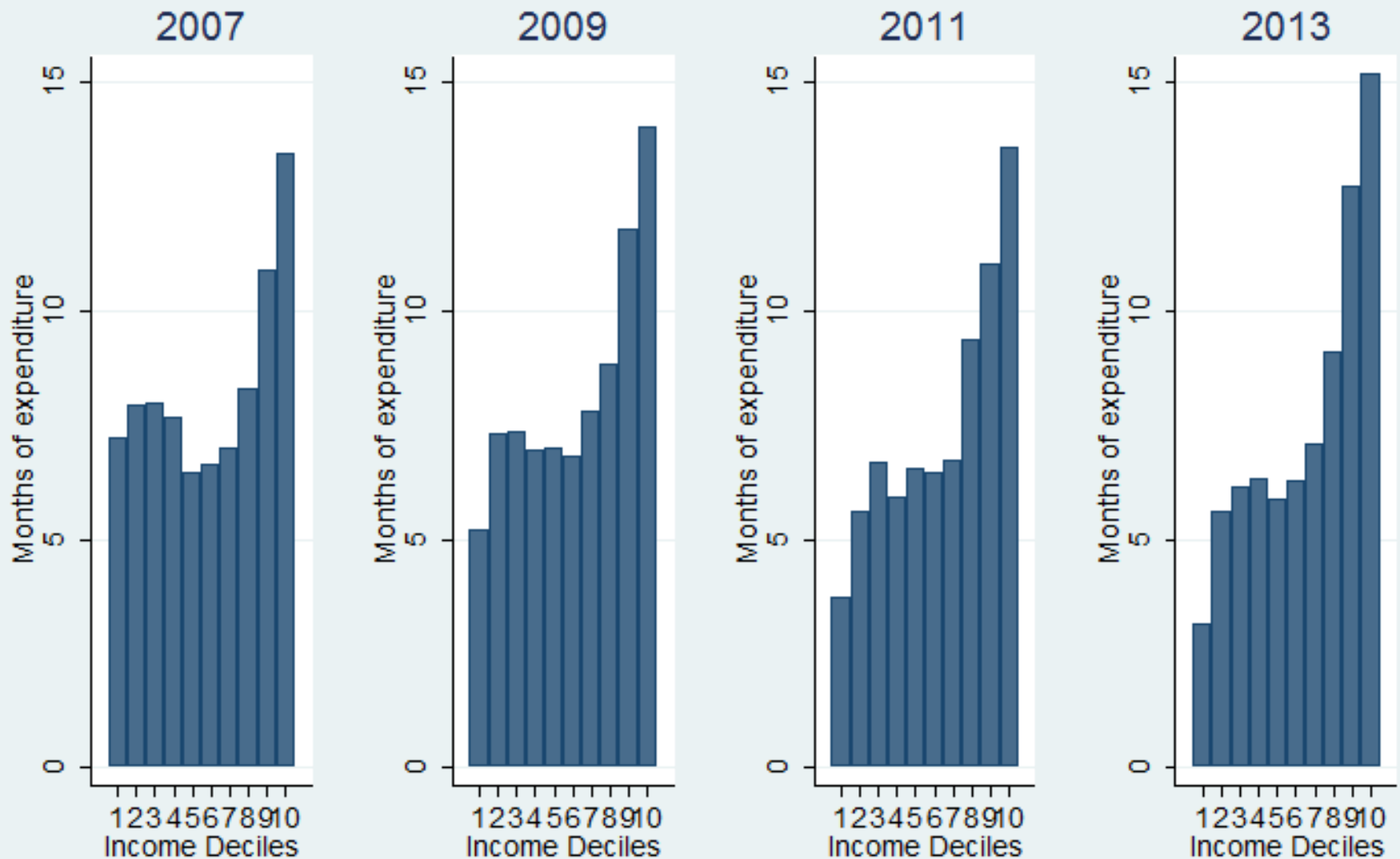
## Only Indebted Households



**A rough measure of debt cover –The average debt cover is about one year (12 months) of income/expenditure except for the wealthiest deciles.**

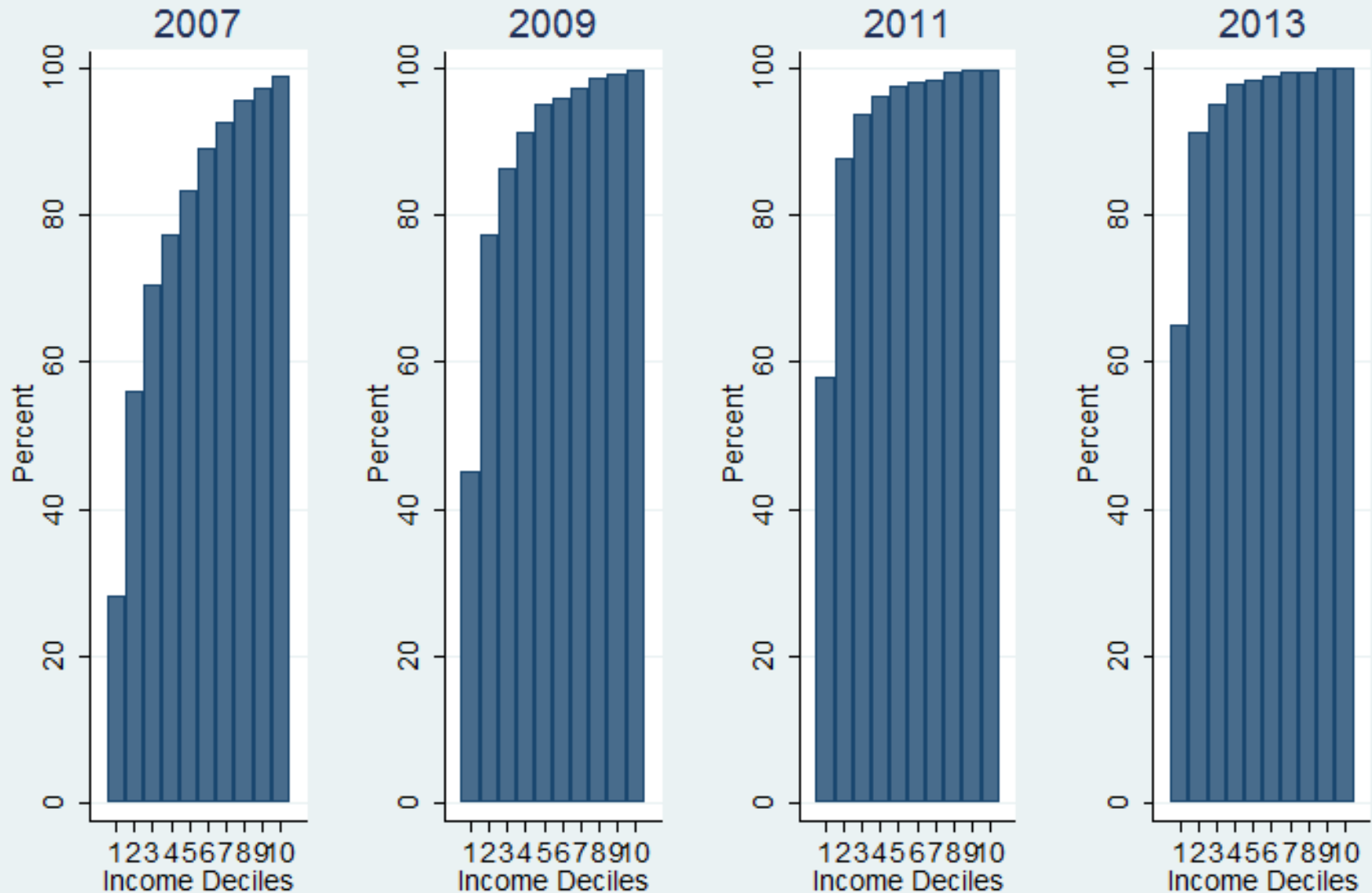
# Amount of Debt Relative to Monthly Cash Expenditure

Avg. All Households



**The same measure of debt cover, now used for all households whether or not they have debt. –The average debt cover is about 6 months.**

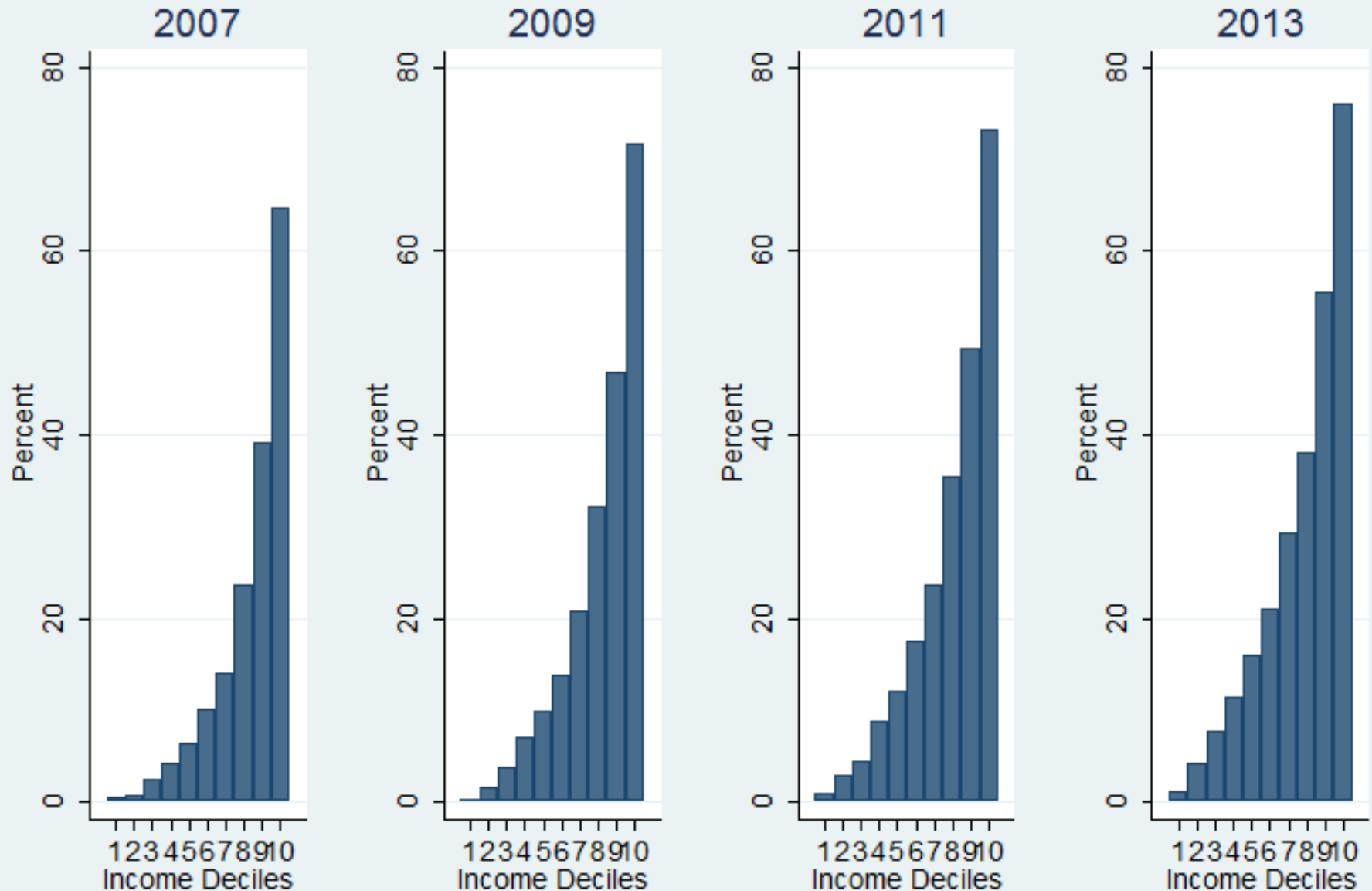
## Own Mobile Phone



**Everyone in Thailand has a mobile phone – SES does not specify if they are smart phones, but most are, since regular mobile phones are no longer for sale.**



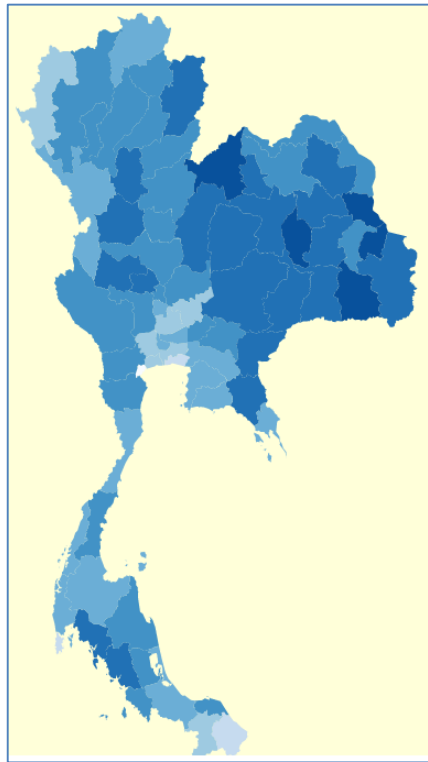
# Own Home computer



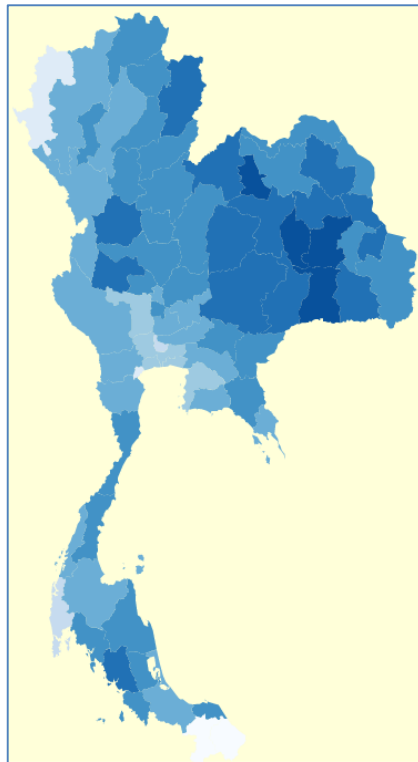
**Computer ownership never reached lower income deciles. Internet probably has wider access through phone use. Responsive website design is important here!**

# Big Data & Financial Inclusion

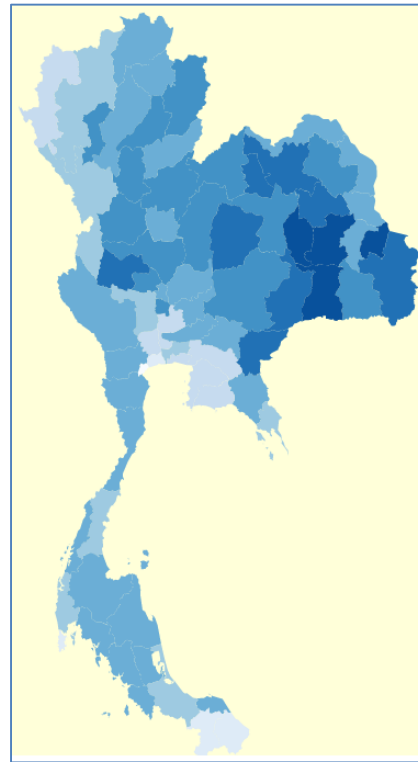
# Share of Households in Debt



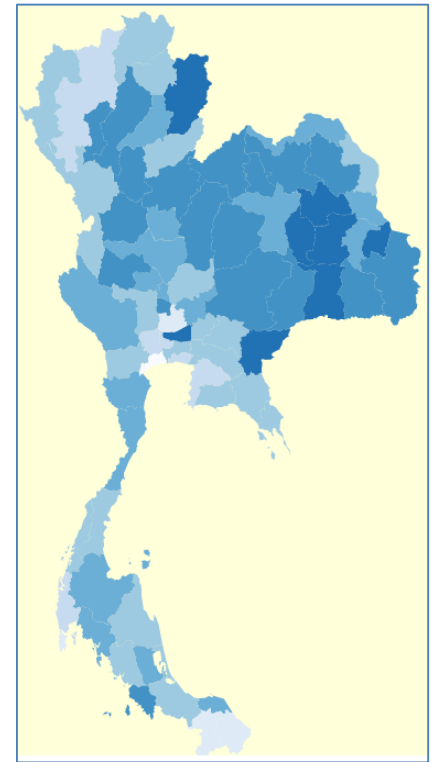
2007



2009



2011



2013

- ***Lower over time....***
- ***Highest in the Northeast and North (Poorest)***

# Classification of Debt in SES

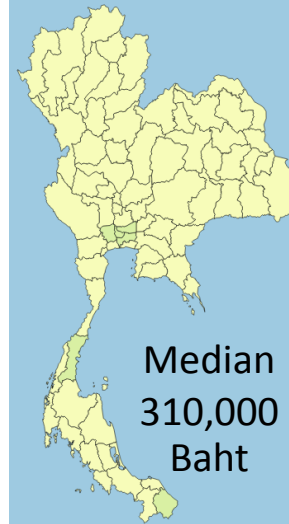
Approximate

Interest Rate (authors guess – Please educate us!)

10%	1 - Commercial banks	-Mostly for Commercial and Wealthy Retail (Bangkok)
8%	2 - Bank for Agriculture & agri,Co-operative	-Mostly for Farming Loans
8%	3 - Government housing bank / Saving bank	-Other Government Subsidized Banks (specialized, smaller in scale, near Bangkok)
28,35%	4 - Other finance companies	-Private finance companies (Aeon, EasyBuy, 1stChoice)
8%	5 - Savings co-operatives organization's welfare	- These refer to cooperatives through workplaces and universities, (such as Chulalongkorn University)
6%	6 - Village fund scheme	-Government subsidized loans for the poorest
80% net	7 - Persons outside the household	- Traditional money lenders, (5% per month)

# Three Markets for Loans?

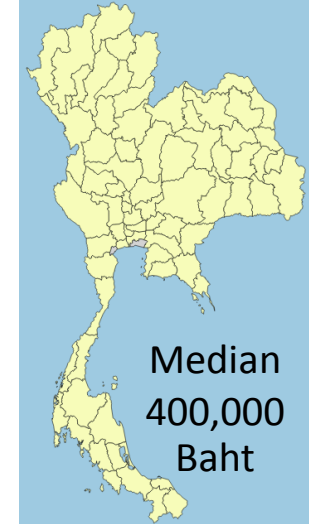
*Median HH Income for Thailand: 17,000 baht*



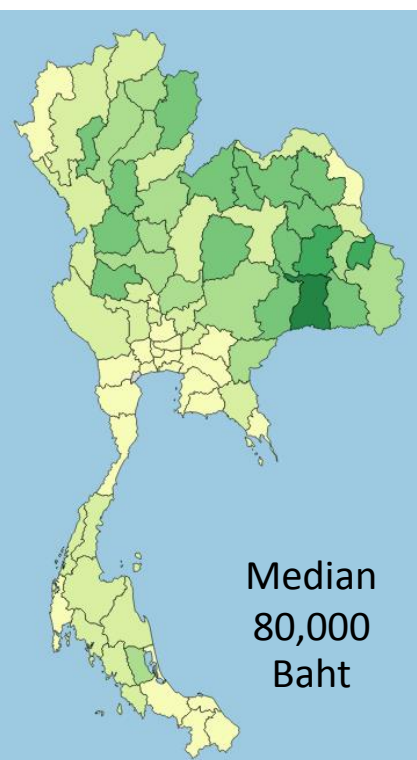
Commercial Banks



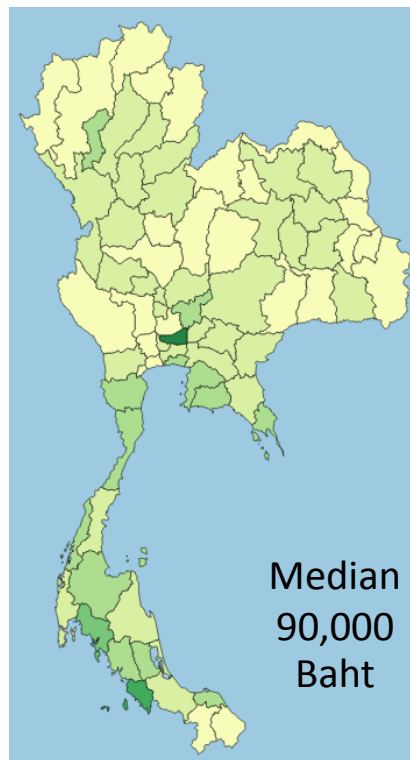
Other Gov't Banks



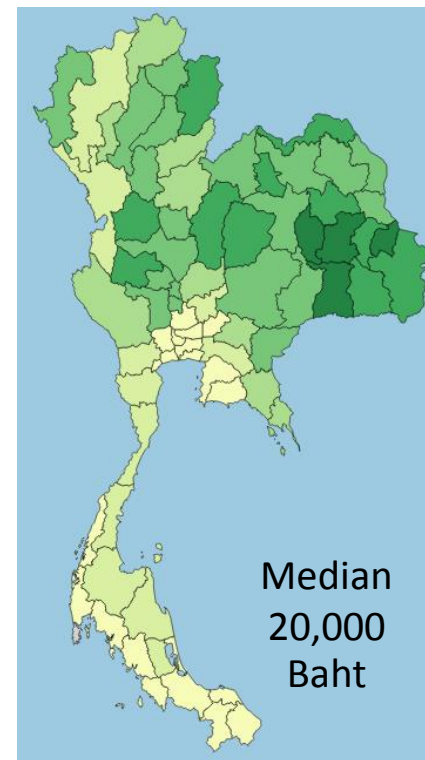
Savings Group



Agricultural Bank



Finance Companies



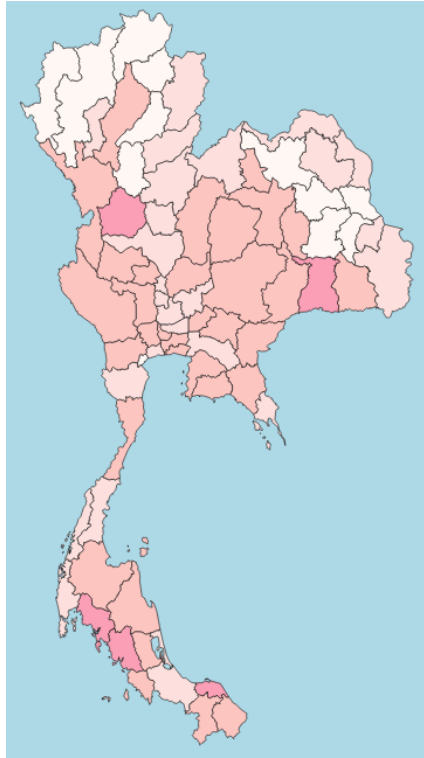
Village Fund



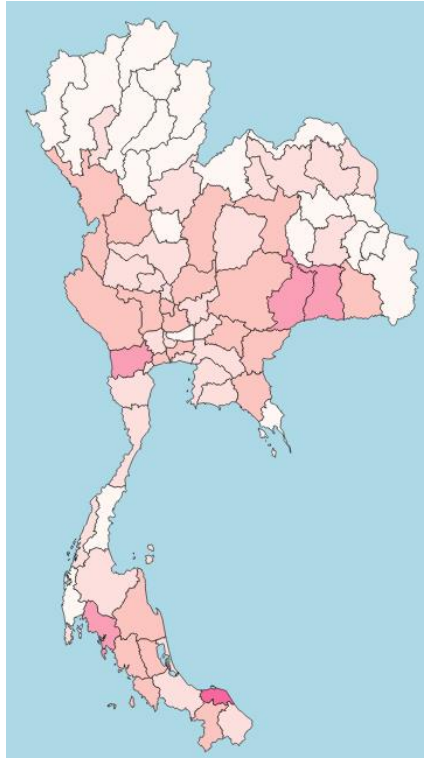
Informal



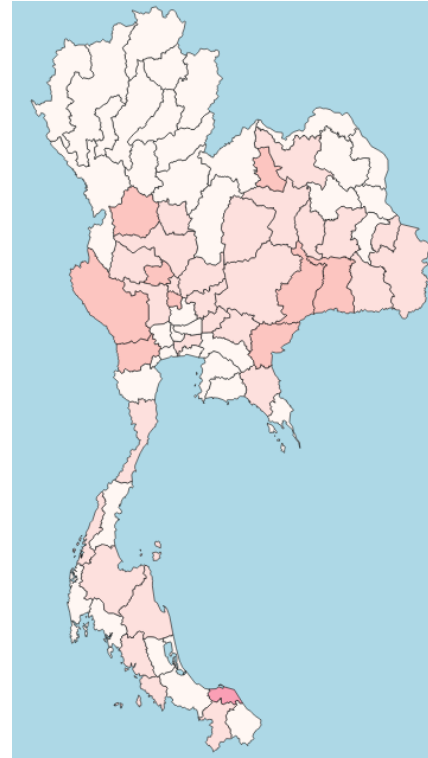
# Demise of the Informal Loan



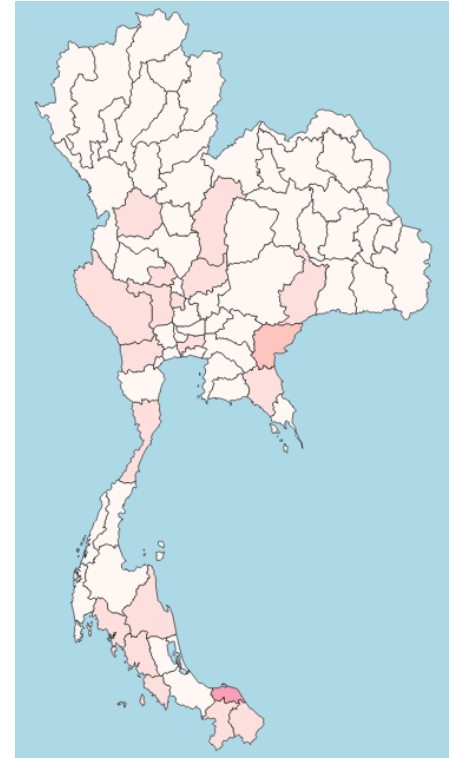
2007



2009



2011



2013

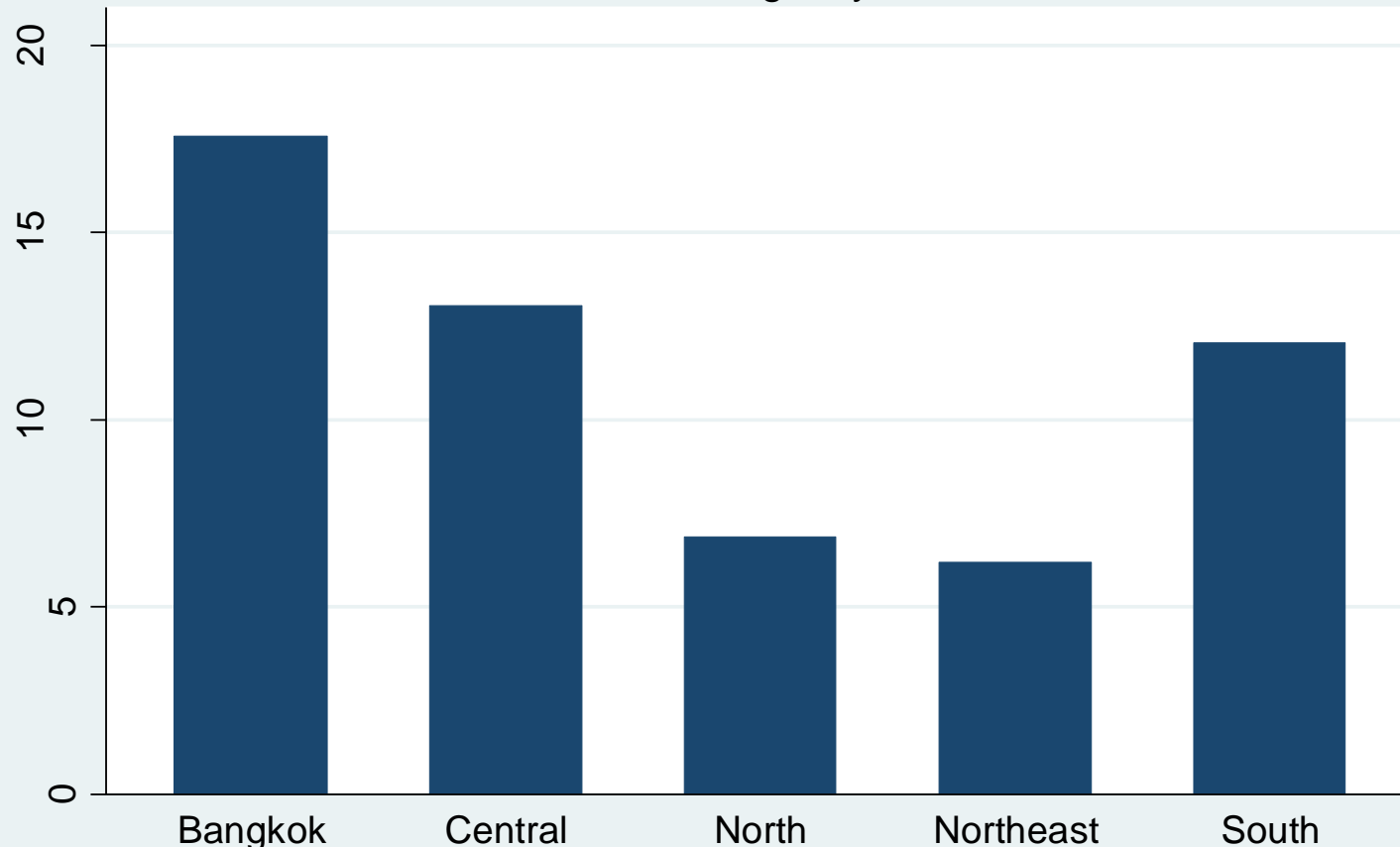
Loans by informal moneylenders have declined precipitously in the past few years, probably as a result of increase in access to finance companies with lower rates.

# Which Thais have Trouble Borrowing?

5. Could you borrow money for  
operating business or farm

6. Could you borrow money for  
emergency payment

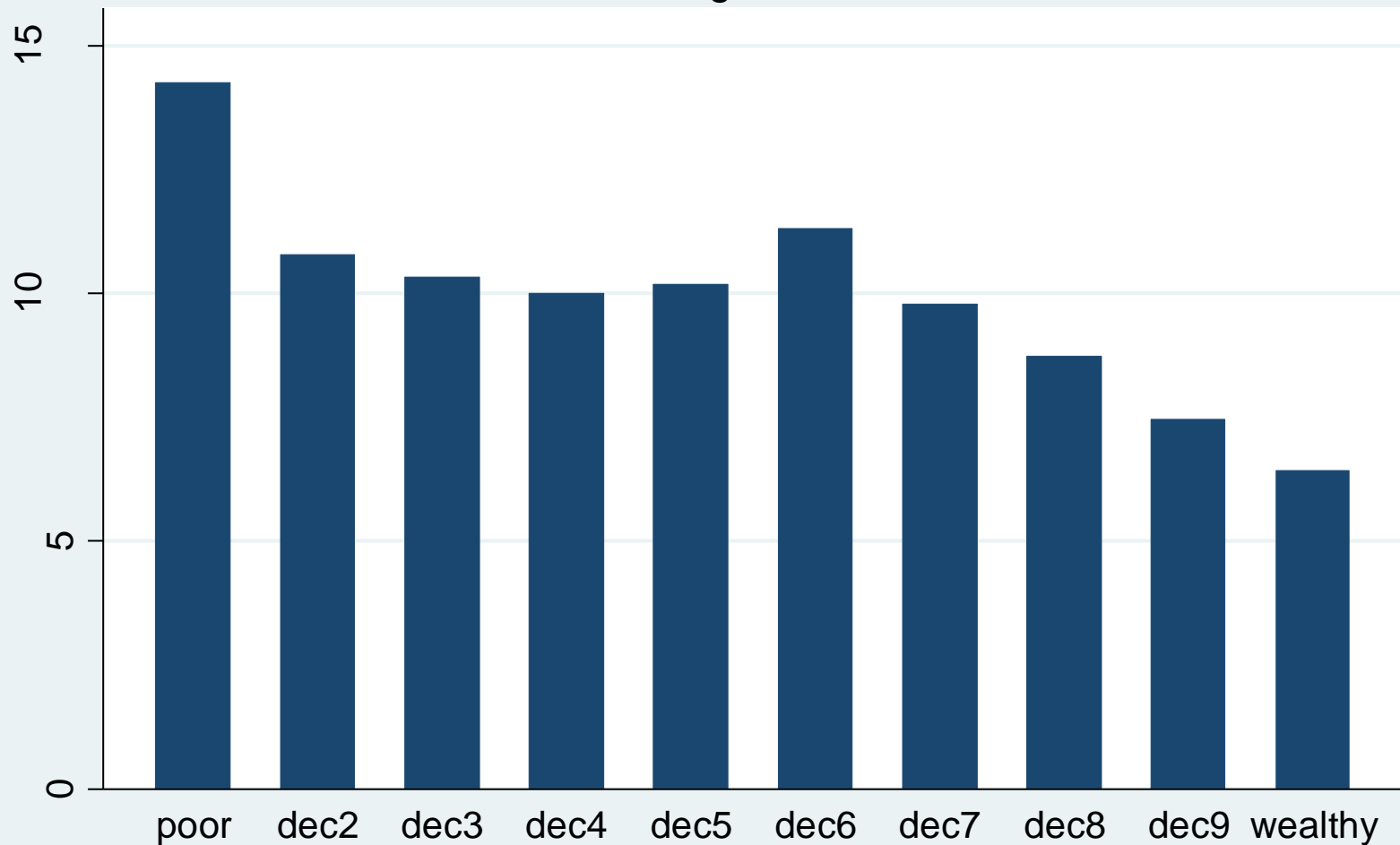
Percent of Population who Said it Would be Difficult  
to Borrow for an Emergency or for Business



SES 2013

# Surprisingly, it does not seem to depend too much on income

Percent of Population who Said it Would be Difficult to Borrow for Emergencies or for Business

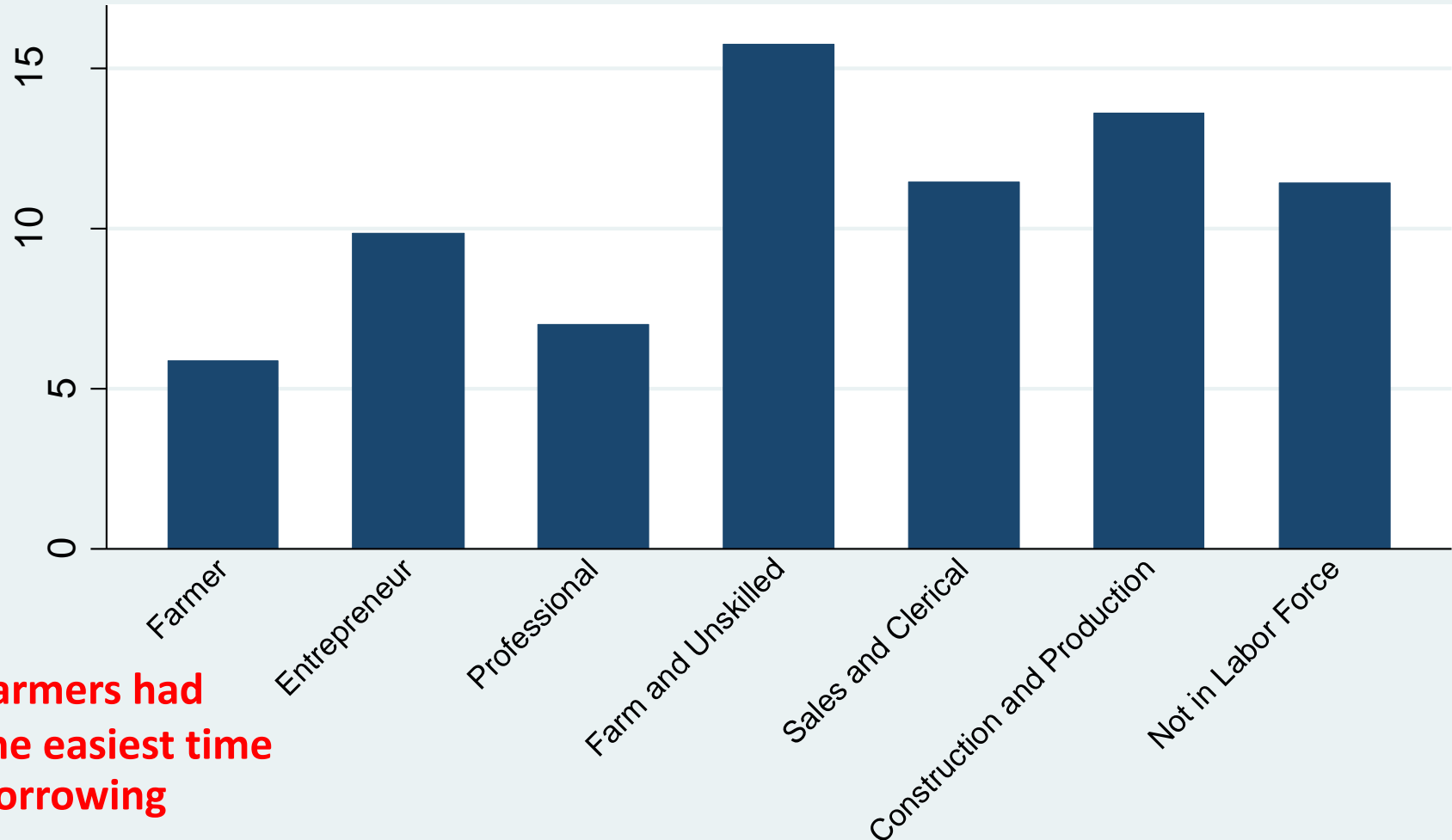


SES 2013

**Household Expenditure Deciles**

# Profession mattered Much more – Unskilled workers were least able to borrow

Percent of Population who Said it Would be Difficult  
to Borrow for Emergencies or for Business



**Farmers had  
the easiest time  
borrowing**

# Agricultural Bank – Hero or Villain?

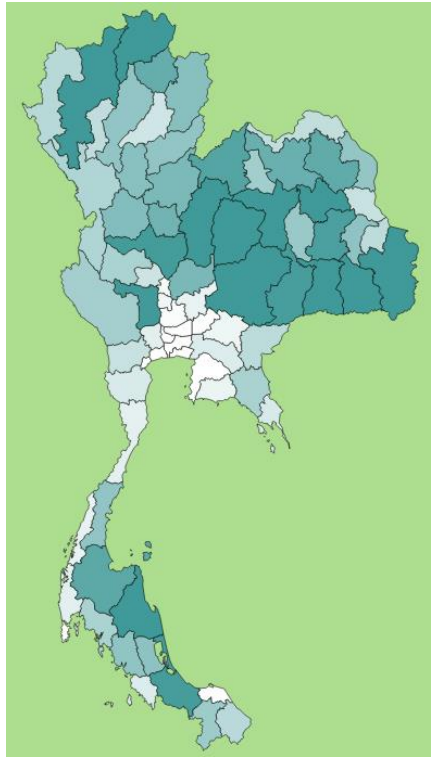
- The Thai Agricultural Bank provides loans to farmers and others at low interest rates.
- One Half of the loans are Not to farmers
- It also administers the Village fund.
- Where ever the Agricultural Bank is active
  - **High Levels of Household Debt**
  - **Low concern about ability to get loans (Easy to get)**



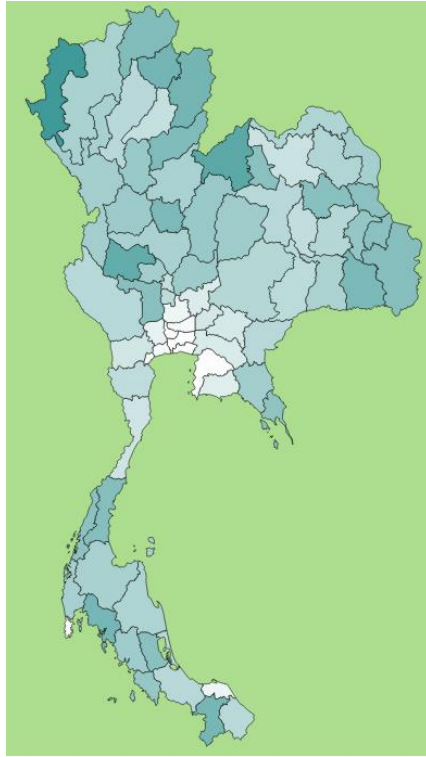
# Agricultural Bank – Hero or Villain?

It looks like Agricultural Bank sets up offices where there are many farmers (picture 1) Once there, they make loans to both farmers and non-farmers, and also run the village fund. The result is a high rate of indebtedness.

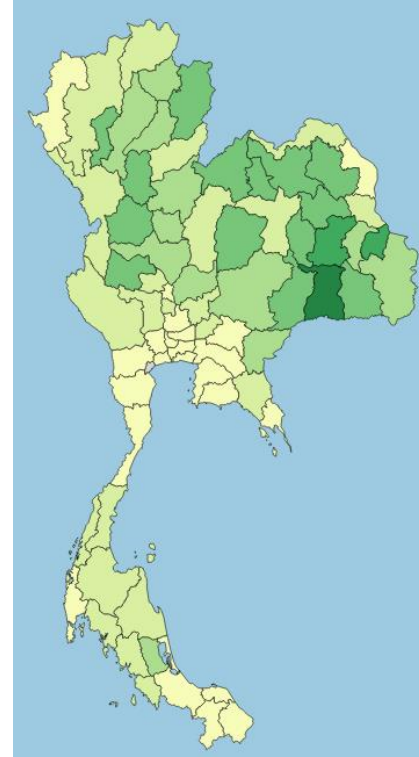
Number of Farmers  
in Province



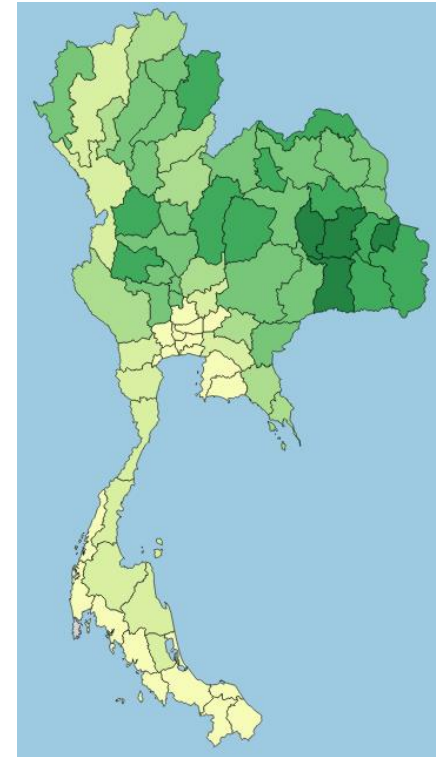
Percent of Population  
who are Farmers



Percent who owe  
money to  
Agricultural Bank



Percent who  
owe money to  
Village Fund



# Village Fund

## Is linked to the Agricultural Bank

Bangkok



Bangkok

Central



SamutPrakan



Nonthaburi



PathumThani



NakhonSi Thammarat



Ayutthaya



AngThong



LopBuri



SingBuri



ChaiNat



Saraburi



ChonBuri



Rayong



Chanthaburi



Trat



Chachoengsao



PrachinBuri



NakhonNayok



Sikasso



Ratchaburi



Kanchanaburi



SuphanBuri



NakhonPathom



SamutSakhon



SamutSongkhram



Phetchaburi

North



ChiangMai



Lamphun



Lampang



Uttaradit



Phrae



Nan



Phayao



ChiangRai



MaeHongSon



NakhonSawan



ChaiThani



KamphaengPhet



Tak



Sukhothai



Phitsanulok



Phichit



Ratchaburi

Northeast



NakhonRatchasima



Buriram



Surin



Sisaket



UbonRatchamani



Nakhon



Charaphum



AmnatCharoen



BuenKan



NongBuaLamphu



KhonKaen



UdonThani



Loei



NongKhai



MahaSarakhun



RoiEt



Kalasin



SakonNakhon



NakhonPhanom



Mukdahan

South



NakhonSiThammarat



Krabi



Phang-nga



Phuket



SuratThani



Ranong



Chumphon



Songkhla



Satun



Trang



Phatthalung



Pattani



Yala



Narathiwat

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# Agricultural Bank

About 40% of those receiving money from the Village Fund also have a loan with the Agricultural Bank

## Bangkok



## Central



## North



## Northeast

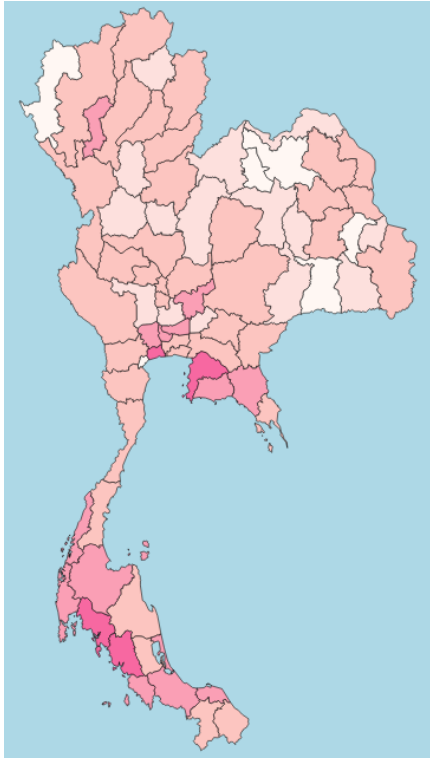


## South

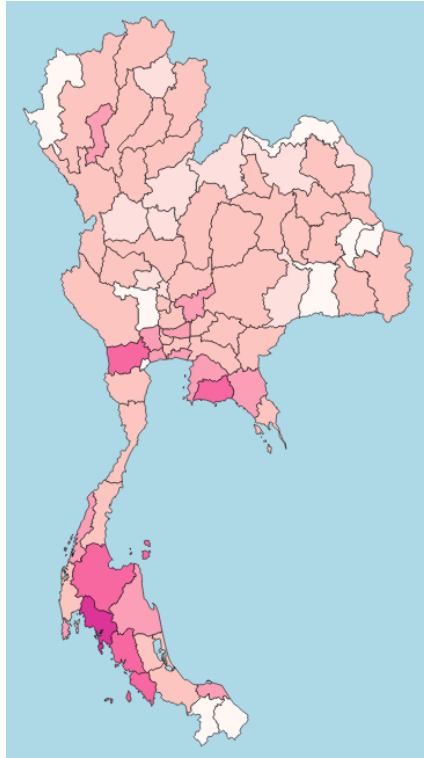


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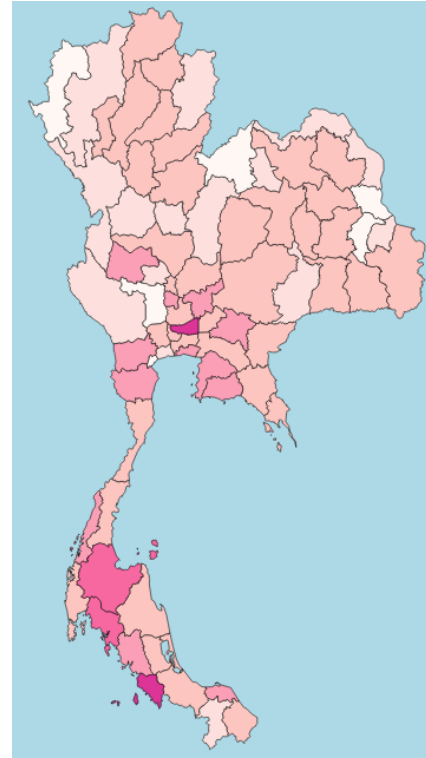
# Loans by Finance Companies



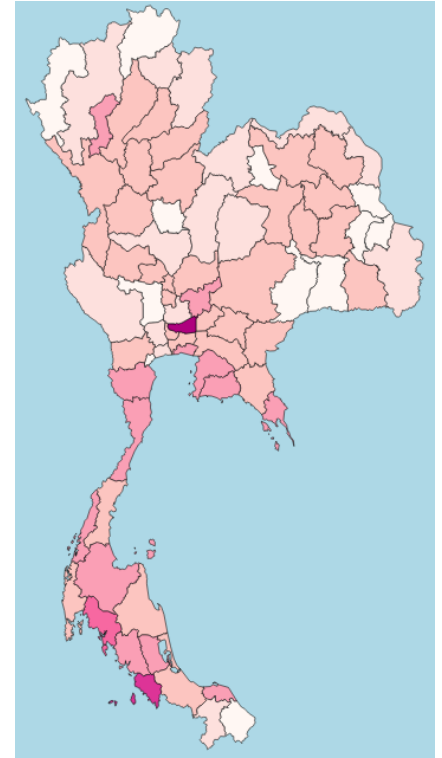
2007



2009



2011



2013

Penetration by finance companies (e.g. Aeon, CarforCash) is high everywhere, but is highest in the regions where the Agricultural Bank (BAAC) has lowest concentration.

# Three lending regimes in one country

- Bangkok – hardest place to get a loan – probably due to a lack of credible social and physical capital
- South and Central – lending dominated by finance companies at “market” interest rates
- North and Northeast – lending dominated by Agricultural Bank at subsidized interest rates



# Conclusions

- Microfinance needed through some sort of “Workers Bank” for working class and urban.
- Consider increasing interest rate somewhat at the Agricultural Bank to discourage indebtedness
- Consider decreasing legal interest rate somewhat for finance companies given that they are everywhere and competing fiercely for business.
- Bank of Thailand’s concerns of “Increasing Indebtedness of Thai People” is really a concern for those at the top of the income scale.
- Are highly subsidized loans justified when it is easy for most people to borrow at market rates?

With grateful thanks to our data source:

**National Statistics Office, Thailand**

<http://web.nso.go.th/>

*Professional statistics... "to honor citizen's entitlements to public information."*

Contact Details:

Daniel Ray Lewis & Sukanda Luangon Lewis  
Faculty of Economics, Chulalongkorn University  
Bangkok, Thailand 10330

[Daniel.L@chula.ac.th](mailto:Daniel.L@chula.ac.th); [Sukanda.L@chula.ac.th](mailto:Sukanda.L@chula.ac.th)

Website: Data Science for Developing Countries

[www.bigdata.econ.chula.ac.th](http://www.bigdata.econ.chula.ac.th)