

# Visual Impairment Monetary Dependency Ratios over Time

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Kevin D. Frick<sup>1</sup>, Christine Spencer<sup>2</sup>,  
Jennifer L. Wolff<sup>1</sup>, Emily W. Gower<sup>1</sup>, John  
H. Kempen<sup>3</sup>

<sup>1</sup>Johns Hopkins University, <sup>2</sup>University of  
Baltimore, <sup>3</sup>University of Pennsylvania



# Conflict of Interest

- None



# Funding

- Prevent Blindness America



# Learning Objectives

- To define the visual impairment monetary dependency ratio
- To describe the ratio from 2004 to 2030 in the United States as a whole and among states
- To analyze what changes in prevalence or individual burden would need to occur to keep the dependency ratio constant



# Visual Impairment Monetary Dependency Ratio

- The ratio of the dollar value of excess informal care received and excess medical care utilized by individuals aged 40 and older with visual impairment to the number of individuals aged 18-65, i.e. those most likely working and paying income taxes that fund public services.
- Conceptually similar to other dependency ratios



# Data

- Data on individuals aged 40 and older in the 1996-2004 Medical Expenditure Panel Survey
  - N=103,428
- **Self-Reported Vision**
  - No Visual Impairment
  - Visual Impairment
    - Have some difficulty seeing but can read newsprint
    - Have some difficulty seeing, cannot read newsprint, can recognize familiar people
    - Have some difficulty seeing, cannot read newsprint, cannot recognize familiar people
  - Blind



# Dollar Figures

- All dollar figures were adjusted to 2004



# Estimating Average Burden per Person with Visual Impairment

- Excess informal care received by and medical care expenditures among individuals with visual impairment compared with those with no visual impairment were estimated using multivariable regressions controlling for potential demographic and comorbidity confounders
  - Age, race, sex, insurance, hypertension, diabetes, self-reported health status, education, family size





## Informal Care Conversion to Dollars

- Excess informal care was converted into dollars using the national minimum wage, \$5.15 per hour.



# National Projections

- National projections were made using published age-specific prevalence rates and US Census Bureau population projections.



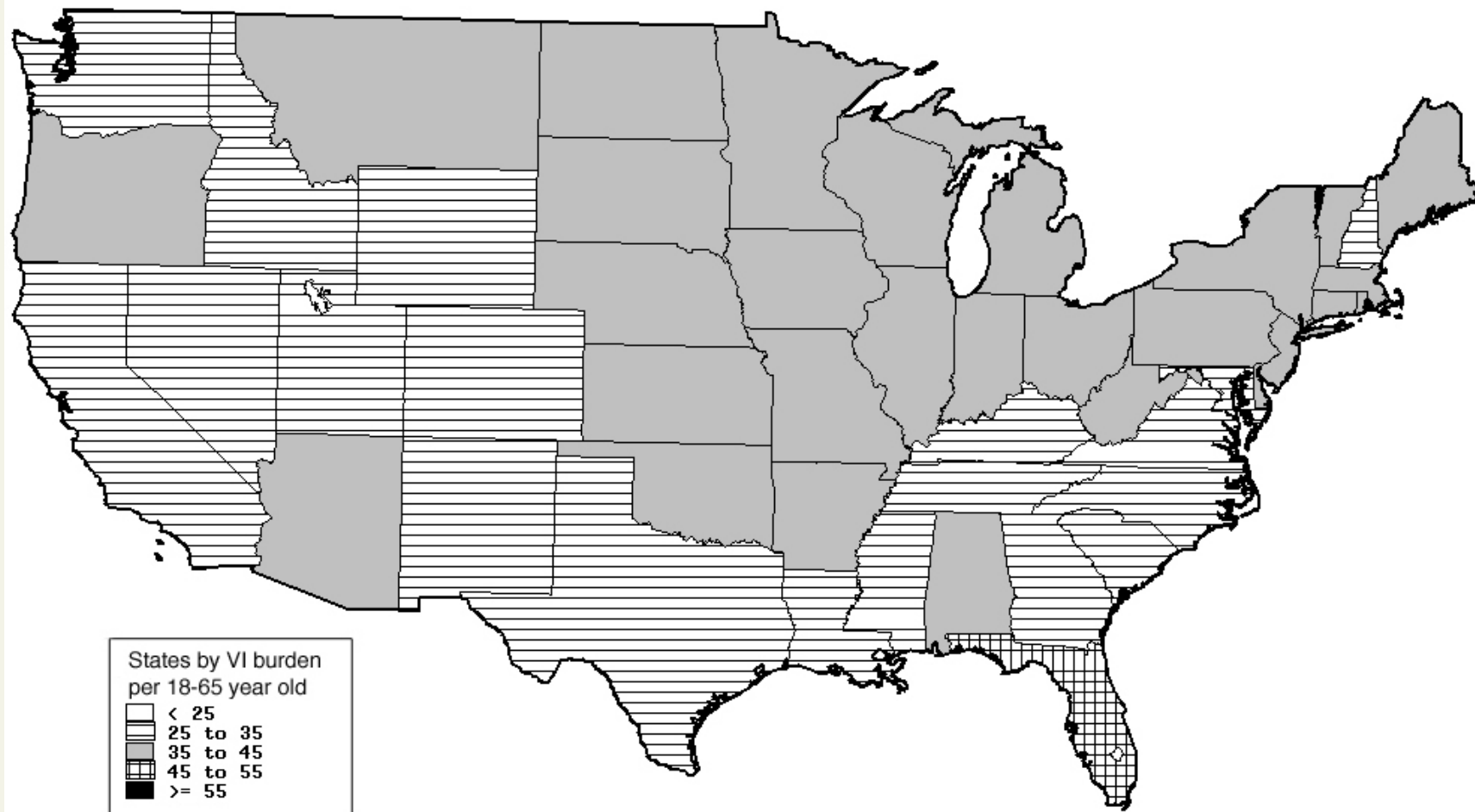
# Analysis

- Identify levels of monetary burden per person of the traditional working age range and identify biggest changes in levels over time

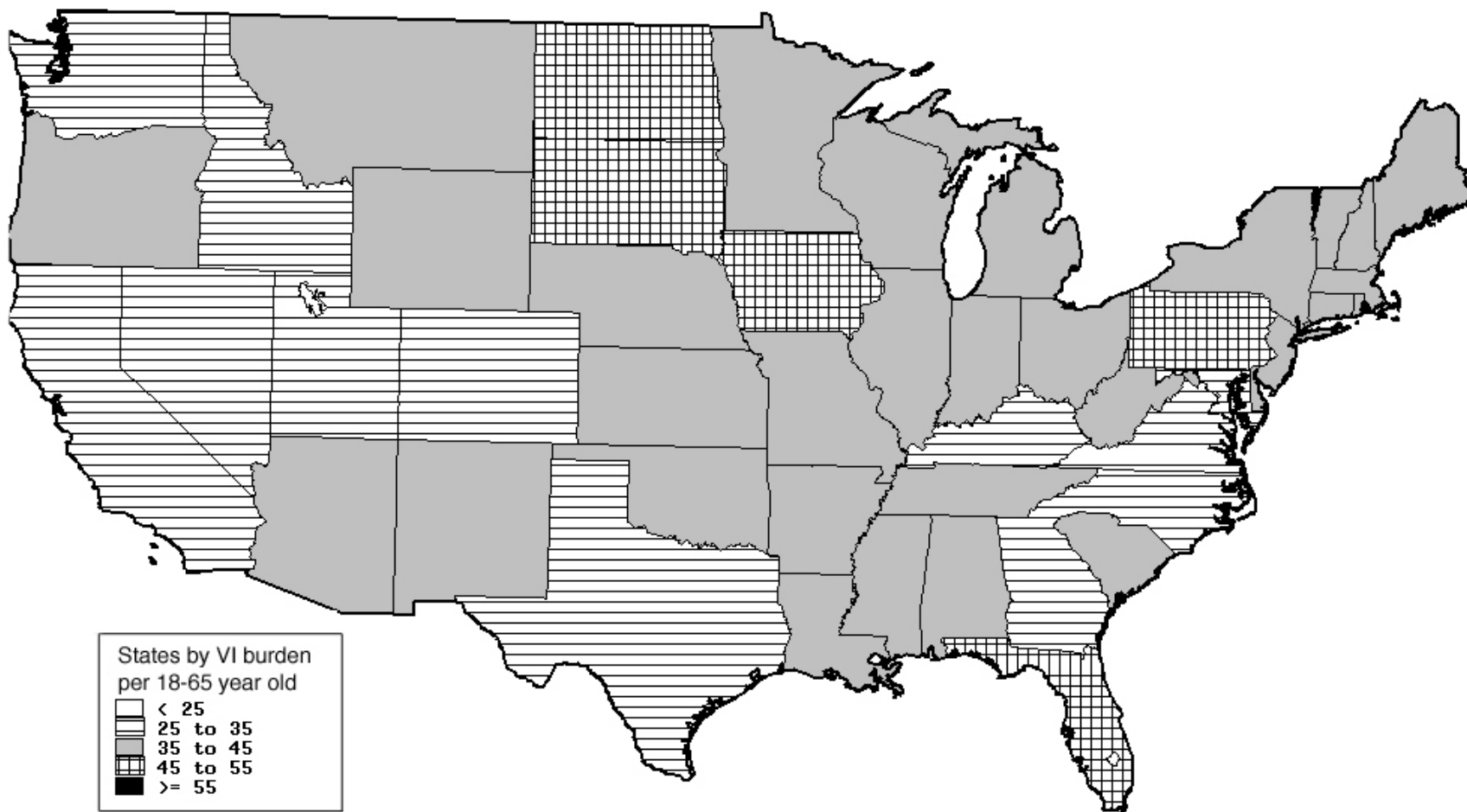
## Average Per Person Results

- Per person who is blind
  - \$2157 in excess medical care expenditures
  - 5.2 days of excess informal care provided by individuals who do not live in the same household
- Person with visual impairment
  - \$1027 in excess medical care expenditures
  - 1.2 days of excess informal care provided by individuals who do not live in the same household

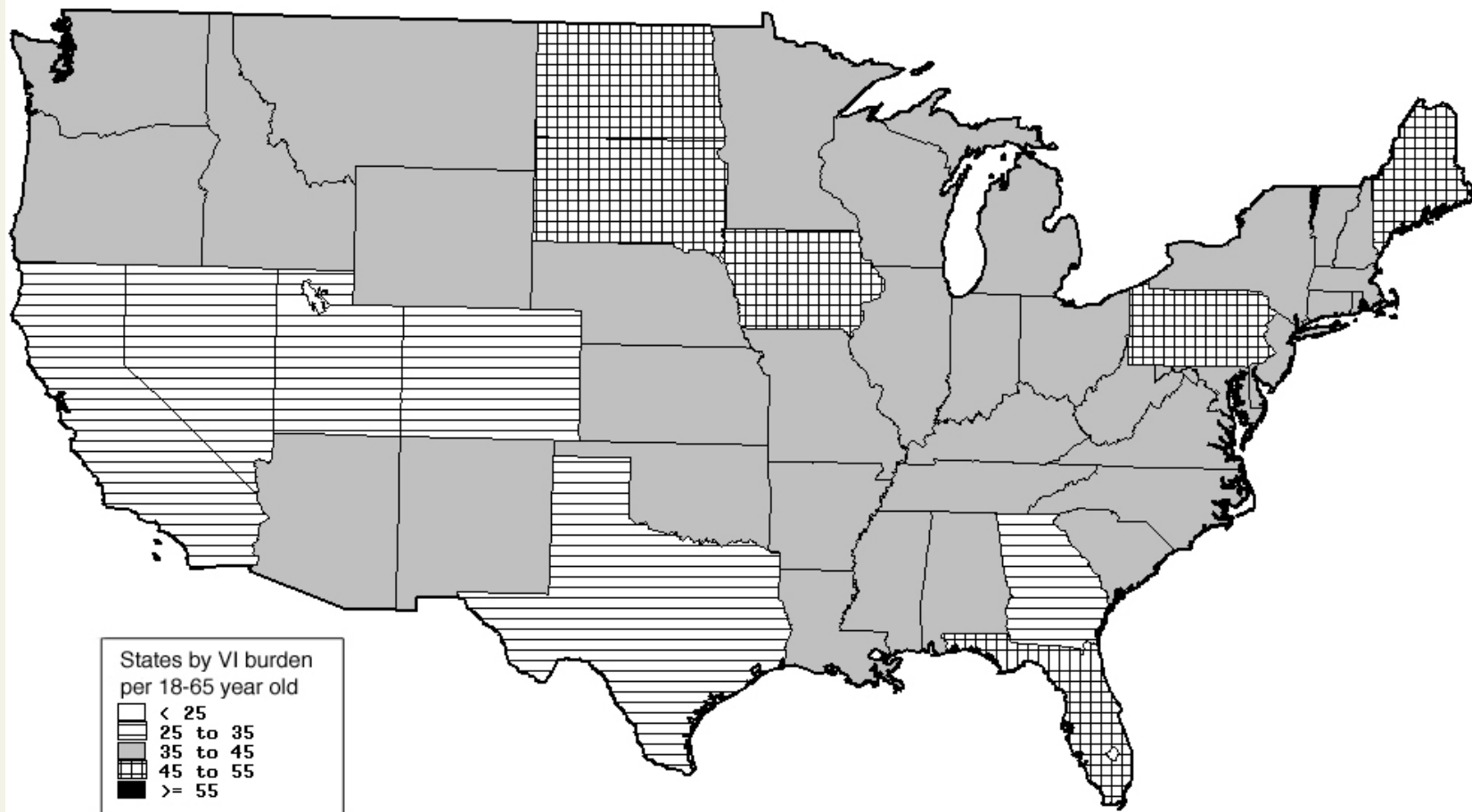
2005



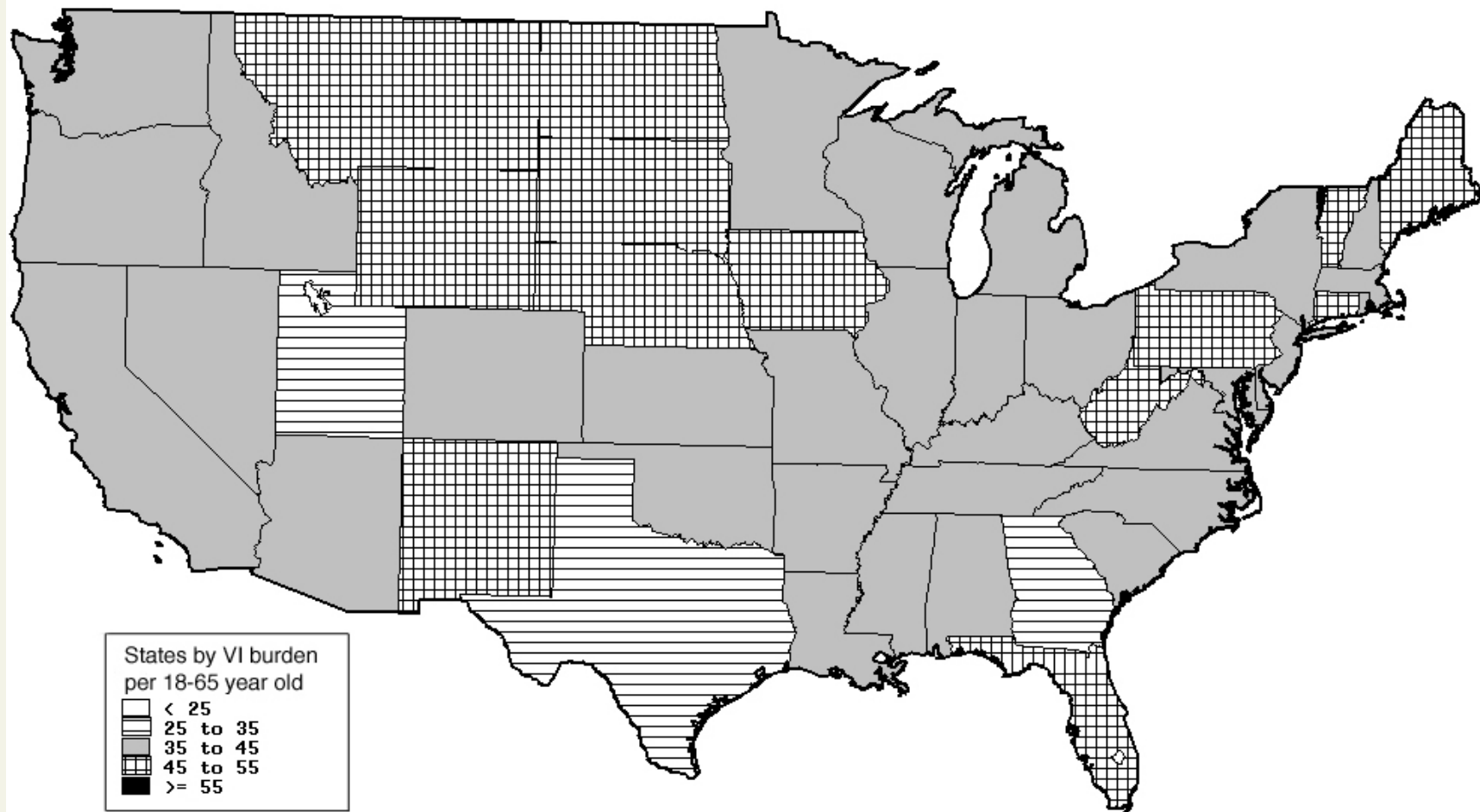
2010



2015

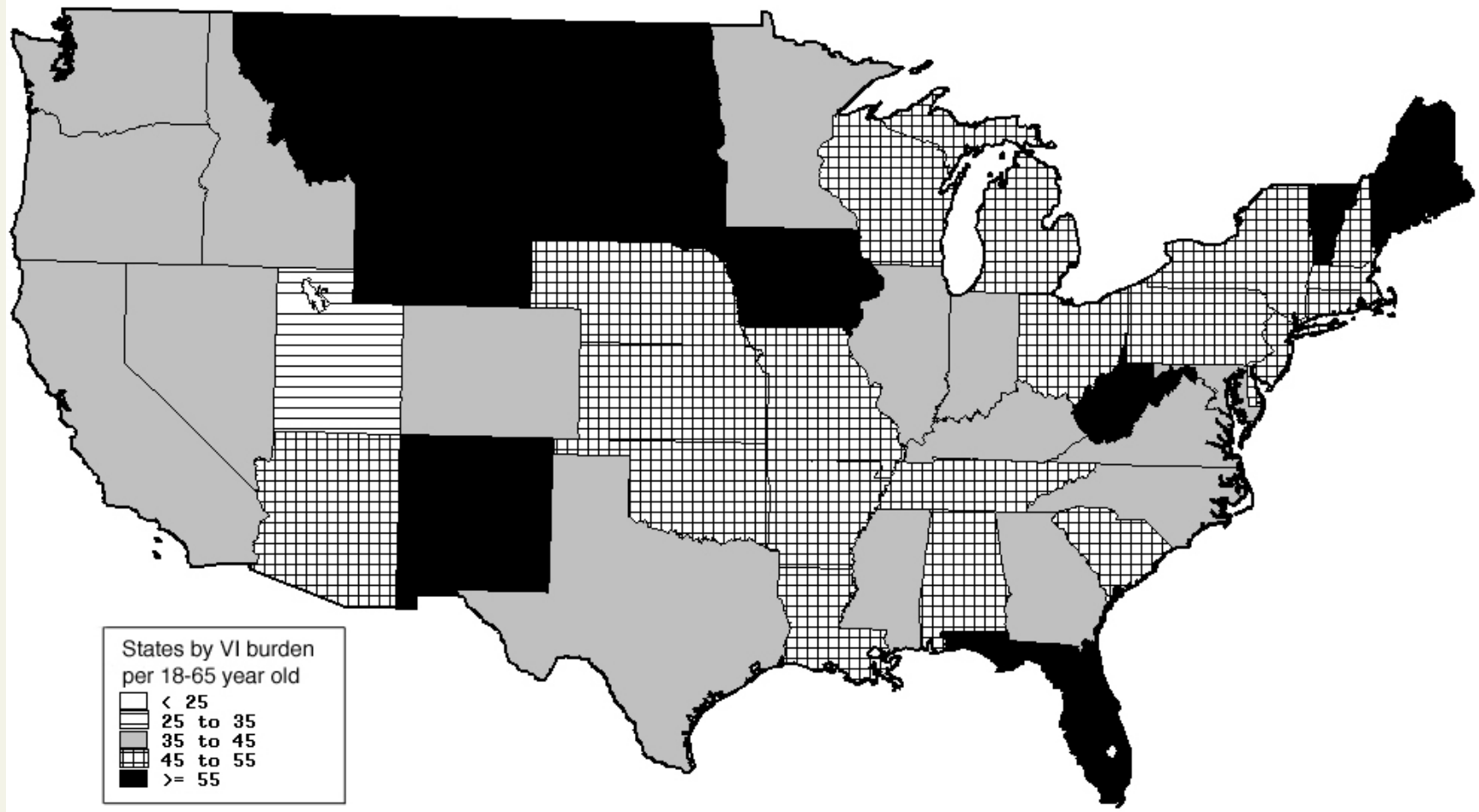


2020

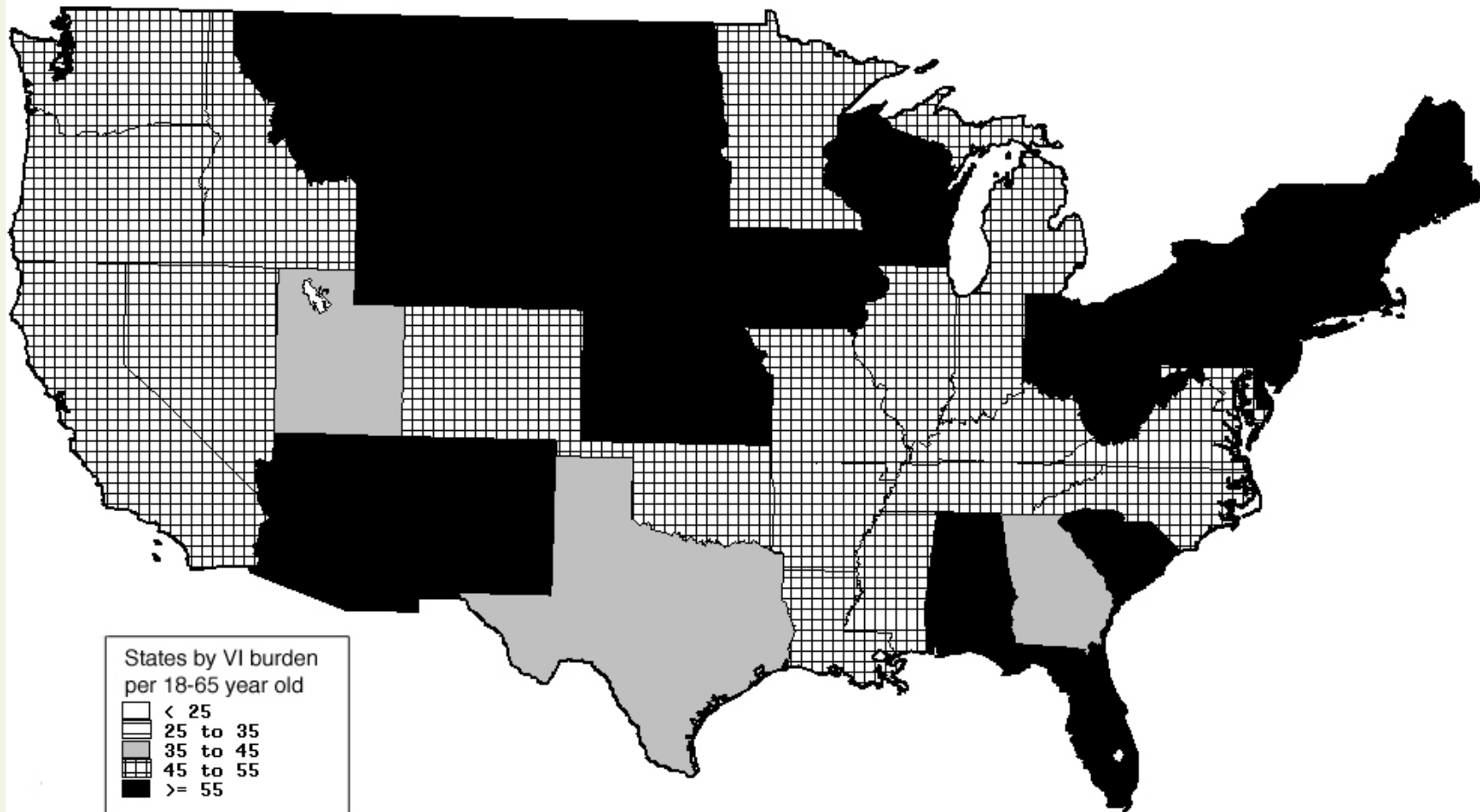




2025



2030





## Low Absolute Burden 2007

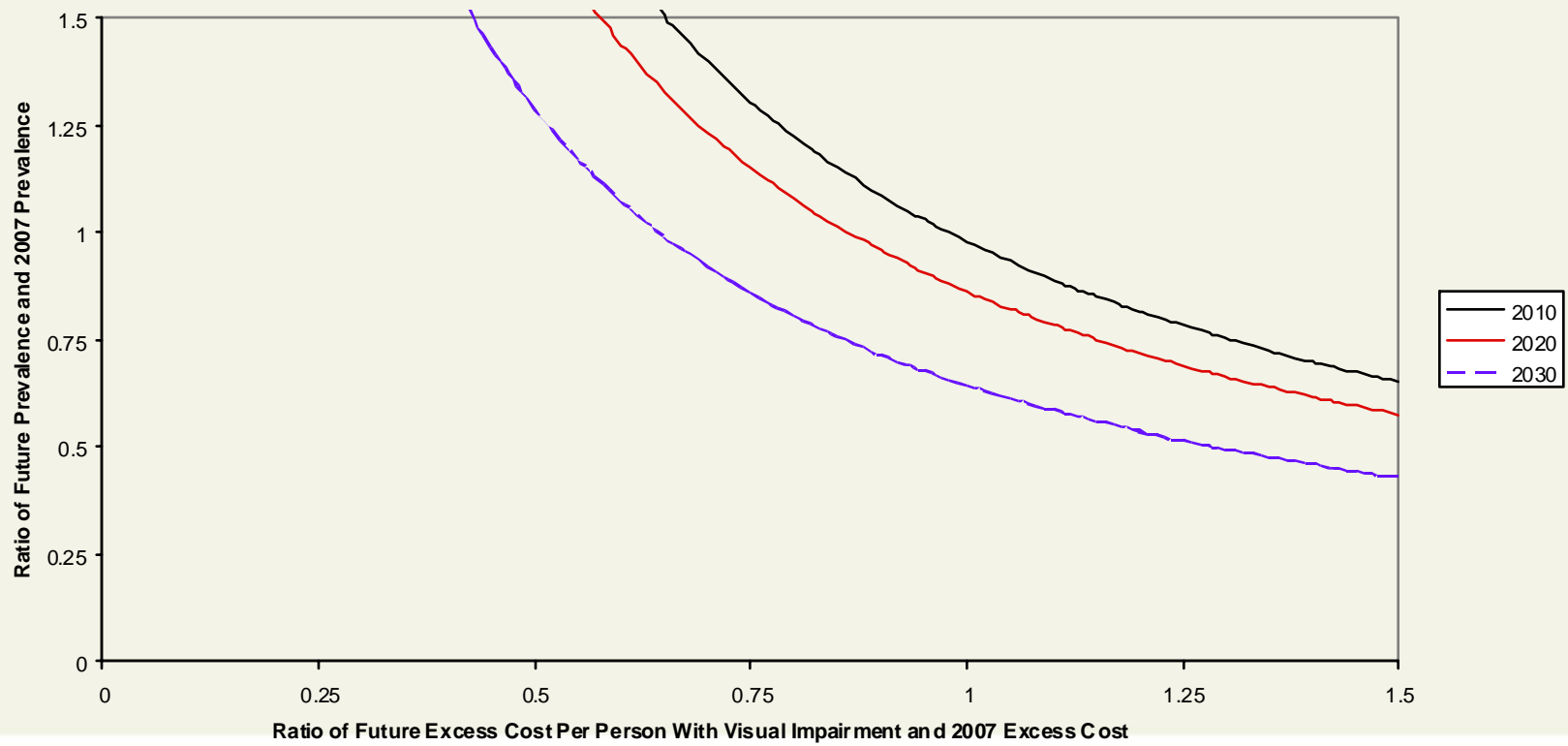
State	Total Burden (Millions of Dollars)		
	2007	2017	2027
Alaska	3.54	5.17	8.29
District of Columbia	5.11	4.54	4.47
Wyoming	5.16	6.51	9.07



## High Absolute Burden 2007

State	Total Burden (Millions of Dollars)		
	2007	2017	2027
Pennsylvania	163.00	169.00	197.00
Texas	184.00	233.00	324.00
New York	212.00	234.00	280.00
Florida	253.00	312.00	450.00
California	332.00	402.00	547.00

**Changes in Excess Expenditures and Care Per Person and Prevalence of Individuals with Visual Impairment to Maintain 2007 Dollar per 18-65 Year Old Burden**





## Conclusion

- While dollar burden per person of traditional working age never grows to amounts in excess of \$100, the burden is projected to double in many states unless there is either a substantial decrease in prevalence or ways are found to accommodate adults with visual impairment without utilizing as high levels of excess resources