

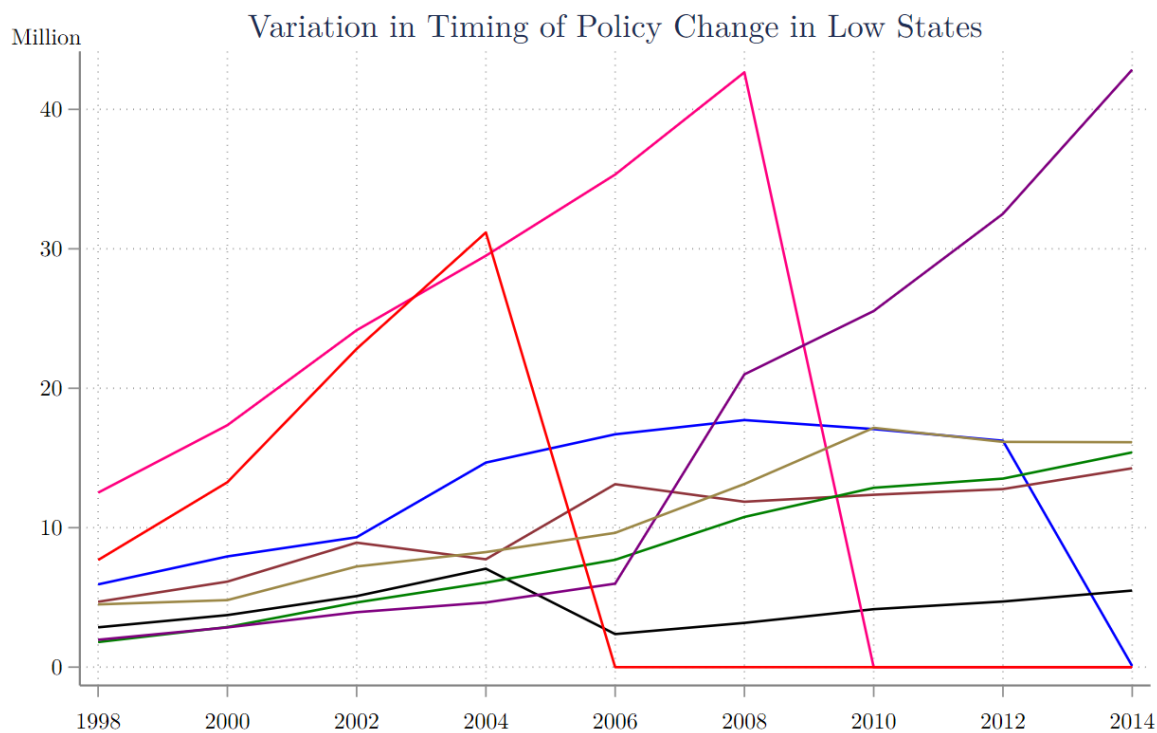
Medicaid Aging Waivers

Figures 1 to 4 display the variation of timing of Medicaid aging waiver funding change for each state from 1998 to 2014. The states are divided into four tiers based on the funding level of their Medicaid aging waivers.¹ The funding change of Medicaid aging waivers from survey year to survey year is in ten million which is the standard scale of policy variables. The mean of funding of Medicaid aging waivers is approximately \$200 million. Per the design of Medicaid aging waivers, there is considerable variation in the timing of funding change across states, as shown in Table 1. Some states amend their policies quite often, while some states rarely change them. There are also some states in which the funding change of aging waivers are not actual changes. For example, Vermont stopped offering the Medicaid aging waiver independently from 2006. The Medicaid aging waiver is consolidated into the Global Commitment Demonstration program. The services covered in aging waivers are continually covered in the new demonstration program from 2006 to 2014 in the study period. Rhode Island stopped providing the stand-alone Medicaid aging waiver and merged it into the Global Consumer Choice Compact Waiver in 2010. Enrollees from the aging waiver are served through the new global waiver. New Jersey replaced its Medicaid aging waiver with Managed Long-Term Services and Supports (MLTSS) in 2014. Participants are automatically enrolled in the MLTSS program. Texas replaced the Medicaid aging waiver in 2014 and participants are covered in a transitional plan. Oregon used a new K plan to replace the aging waiver in 2014. In the robustness check, I excluded these states of which the expenditures data do not reflect the true variation in Medicaid aging waiver in the years. Figures 5 to 8 show the detailed funding pattern of Medicaid aging waivers and HCBS resources for each state.

¹States with low expenditures are those with Medicaid aging waiver expenditures below the 25 percentile in the United States; median expenditure is the 25th to 50th percentile; median high expenditure is the 50th to 75th percentile and high expenditure is above the 75th percentile. Low states are Delaware, Nevada, North Dakota, Rhode Island, South Dakota, Tennessee, Utah, Vermont and Wyoming; median states are Alaska, Hawaii, Idaho, Iowa, Louisiana, Maine, Massachusetts, Montana, Nebraska, New Hampshire, New Mexico and New York; median high states are Alabama, Arkansas, California, Colorado, Connecticut, Indiana, Kansas, Kentucky, Maryland, Michigan, Mississippi, Missouri, New Jersey, Oklahoma, South Carolina and West Virginia; high states are Florida, Georgia, Illinois, Minnesota, North Carolina, Ohio, Oregon, Pennsylvania, Texas, Virginia, Washington, and Wisconsin.

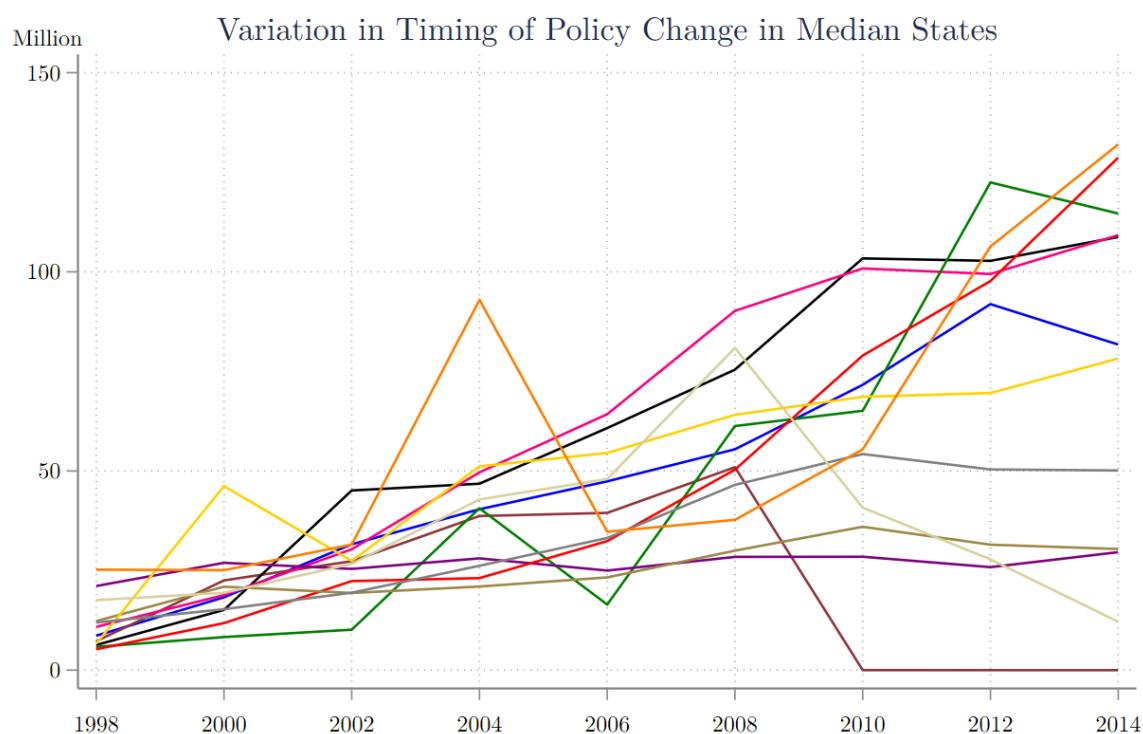
In addition to the Medicaid aging waiver, other state plans under Medicaid HCBS programs might cover home-based care for the older population. The total Medicaid HCBS expenditures are 10 times larger than the funding of Medicaid aging waivers. However, these plans are available to every Medicaid eligible state resident and cannot be specifically limited to the older population. In 2018, approximately 3 million enrollees received Medicaid HCBS, and 2.5 million beneficiaries received Medicaid aging waivers (85%). As shown in Table 2, the home health state plan provides more services involving nurses and professionals, and the personal care state plan offers services such as personal care and household activities at homes, work sites, foster care, or assisted living facilities. There are some overlapping services offered in these programs and Medicaid aging waivers. States with generous Medicaid HCBS funding might allocate more resources to Medicaid aging waivers.

Figure 1: Variation in Timing of Medicaid Aging Waiver Funding Change in Low Tier States



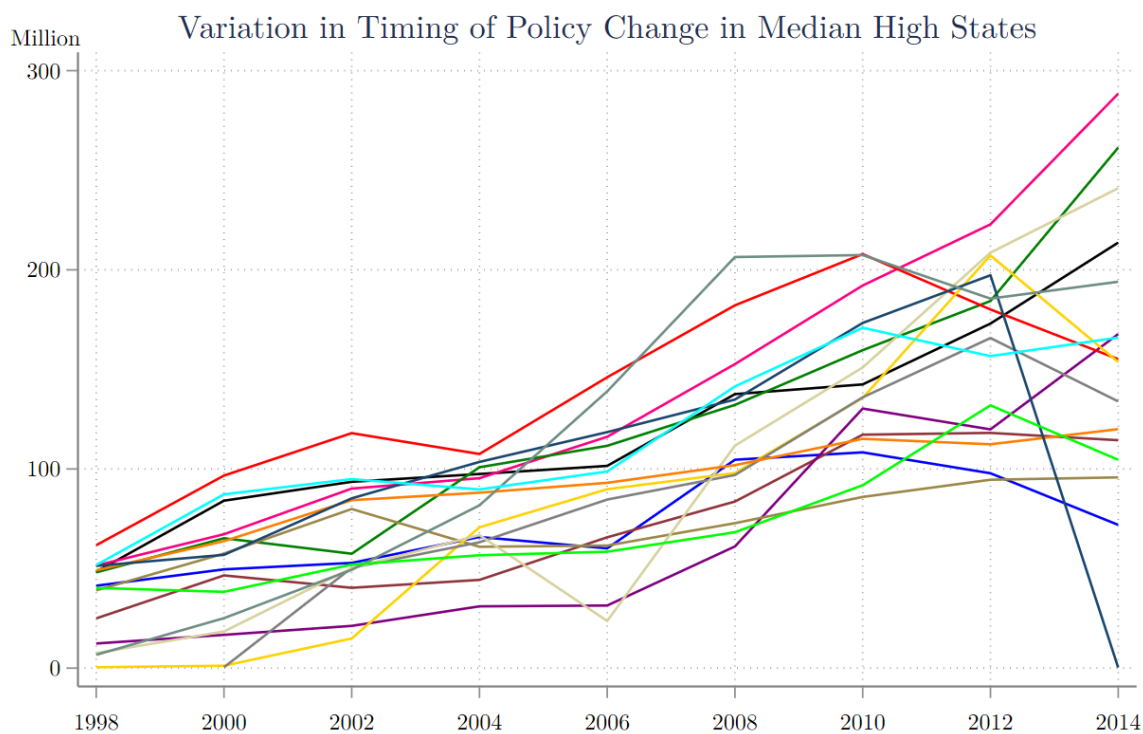
Notes: The plot draws the expenditures of Medicaid aging waivers across years and across states. Each line corresponds to one state. The low tier state indicates the state of which mean expenditures of Medicaid aging waivers is below 25 percentiles of that in the United States: Delaware, Nevada, North Dakota, Rhode Island, South Dakota, Tennessee, Utah, Vermont and Wyoming.

Figure 2: Variation in Timing of Medicaid Aging Waiver Funding Change in Median Tier States



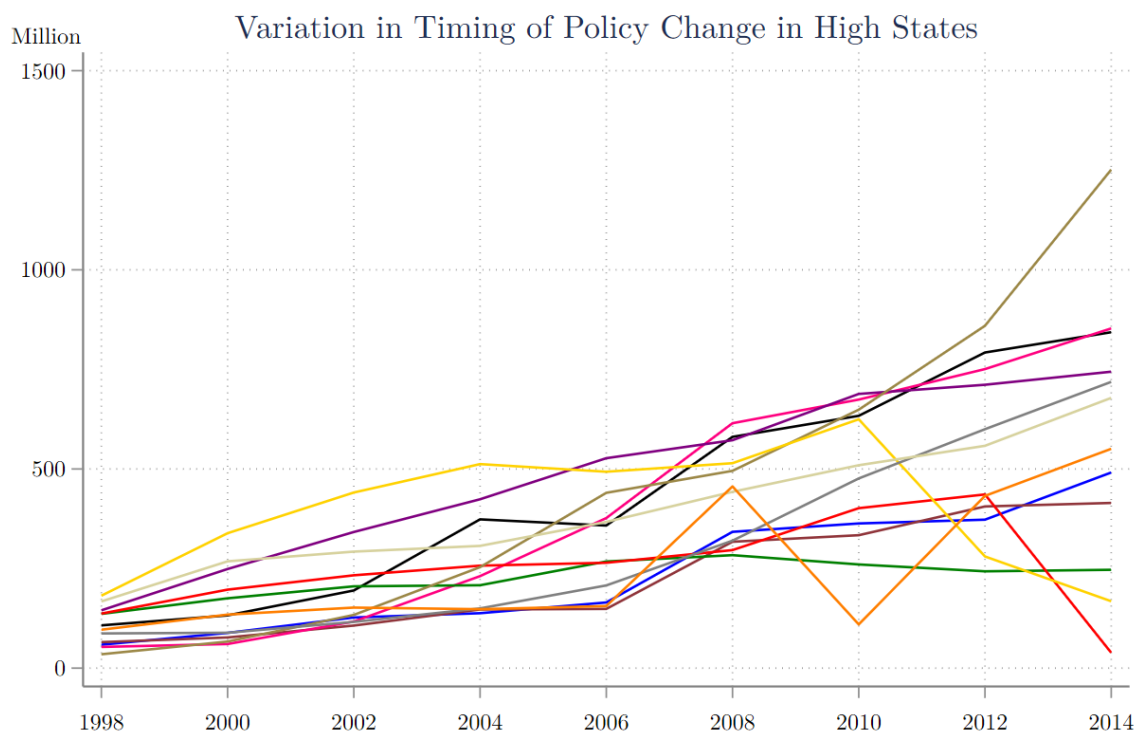
Notes: The plot draws the expenditures of Medicaid aging waivers across years and across states. Each line corresponds to one state. The median tier state indicates the state of which mean expenditures of Medicaid aging waivers is 25 to 50 percentiles of that in the United States: Alaska, Hawaii, Idaho, Iowa, Louisiana, Maine, Massachusetts, Montana, Nebraska, New Hampshire, New Mexico and New York.

Figure 3: Variation in Timing of Medicaid Aging Waiver Funding Change in Median High States



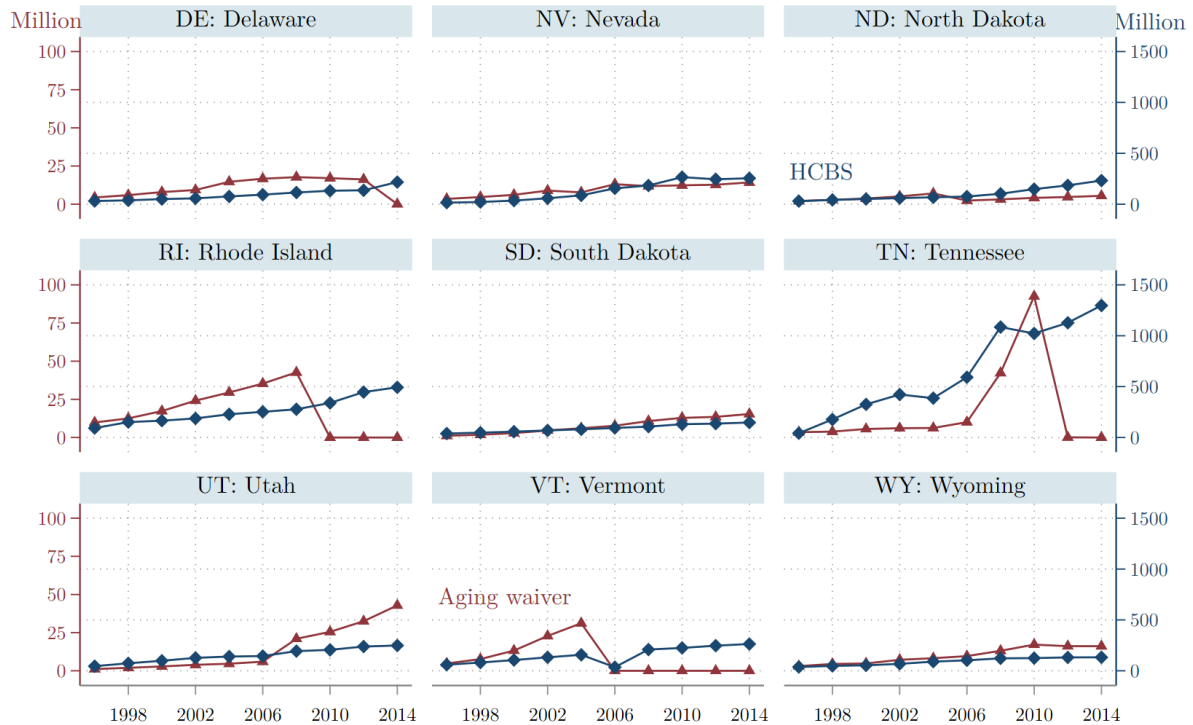
Notes: The plot draws the expenditures of Medicaid aging waivers across years and across states. Each line corresponds to one state. The median high tier state indicates that of which mean expenditures of Medicaid aging waivers is 50 to 75 percentiles of that in the United States: Alabama, Arkansas, California, Colorado, Connecticut, Indiana, Kansas, Kentucky, Maryland, Michigan, Mississippi, Missouri, New Jersey, Oklahoma, South Carolina and West Virginia.

Figure 4: Variation in Timing of Medicaid Aging Waiver Funding Change in High Tier States



Notes: The plot draws the expenditures of Medicaid aging waivers across years and across states. Each line corresponds to one state. The high tier states indicates the state of which mean expenditures of Medicaid aging waivers is above 75 percentiles of that in the United States: Florida, Georgia, Illinois, Minnesota, North Carolina, Ohio, Oregon, Pennsylvania, Texas, Virginia, Washington, and Wisconsin.

Figure 5: State Variation in Timing of Medicaid Aging Waiver Funding Change in Low Tier



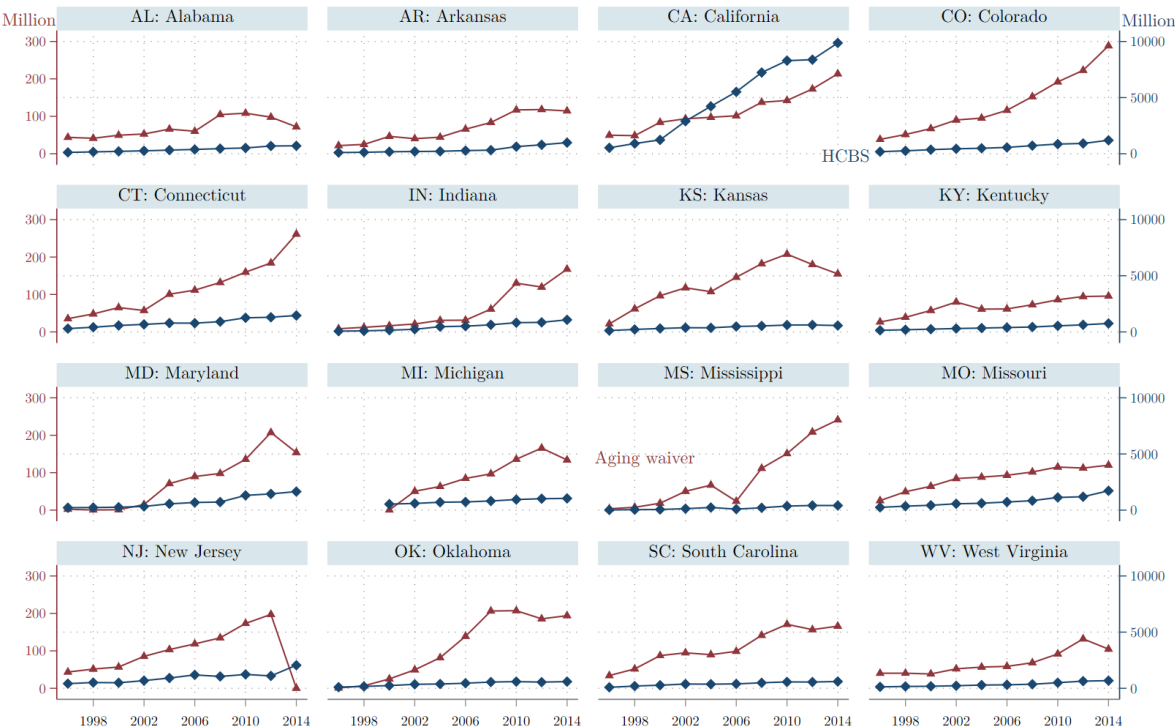
Notes: The plot draws the mean expenditures of Medicaid aging waivers and HCBS across years and across states. Blue line indicates the total HCBS expenditures and red line is the Medicaid aging waiver expenditures. Low tier state indicates the state of which mean expenditures of Medicaid aging waivers is below 25 percentiles of that in the United States: Delaware, Nevada, North Dakota, Rhode Island, South Dakota, Tennessee, Utah, Vermont and Wyoming.

Figure 6: State Variation in Timing of Medicaid Aging Waiver Funding Change in Median Tier



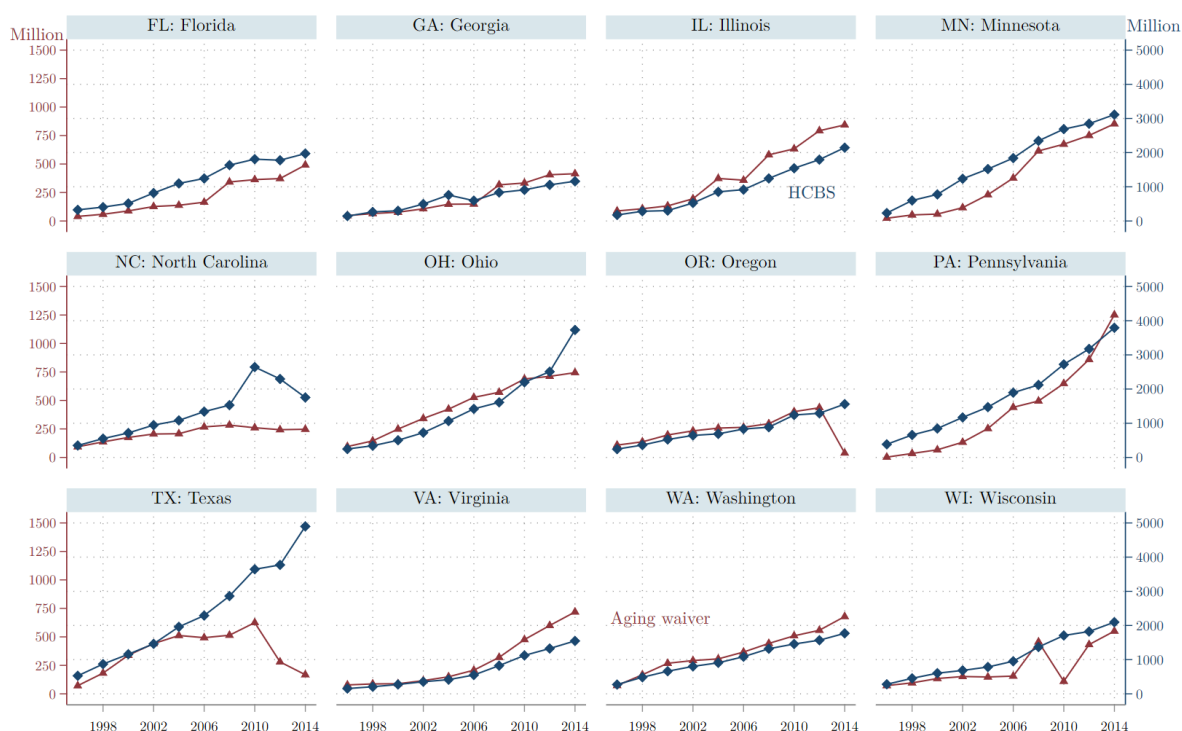
Notes: The plot draws the mean expenditures of Medicaid aging waivers and HCBS across years and across states. Blue line indicates the total HCBS expenditures and red line is the Medicaid aging waiver expenditures. Median tier state indicates the state of which mean expenditures of aging waivers is 25 to 50 percentiles of that in the United States: Alaska, Hawaii, Idaho, Iowa, Louisiana, Maine, Massachusetts, Montana, Nebraska, New Hampshire, New Mexico and New York.

Figure 7: State Variation in Timing of Medicaid Aging Waiver Funding Change in Median High



Notes: Median high tier state indicates that of which mean expenditures of Medicaid aging waivers is 50 to 75 percentiles of that in the United States: Alabama, Arkansas, California, Colorado, Connecticut, Indiana, Kansas, Kentucky, Maryland, Michigan, Mississippi, Missouri, New Jersey, Oklahoma, South Carolina and West Virginia. Blue line indicates the total HCBS expenditures and red line is the Medicaid aging waiver expenditures.

Figure 8: State Variation in Timing of Medicaid Aging Waiver Funding Change in High Tier



Notes: High tier states indicates the state of which mean expenditures of aging waivers is above 75 percentiles of that in the United States: Florida, Georgia, Illinois, Minnesota, North Carolina, Ohio, Oregon, Pennsylvania, Texas, Virginia, Washington, and Wisconsin. Blue line indicates the total HCBS expenditures and red line is the Medicaid aging waiver expenditures.

Table 1: Variation in Timing of Medicaid Aging Waiver Funding Change

State	1998	2000	2002	2004	2006	2008	2010	2012	2014
AK		X	X				X		X
AL	X	X				X			X
AR		X			X	X	X		
AZ									
CA		X	X					X	
CO				X					X
CT			X	X					X
DE				X					X
FL			X			X			X
GA				X		X		X	
HI		X		X			X		
IA						X			
ID		X	X						
IL			X	X		X		X	
IN						X	X		
KS				X				X	X
KY				X					
LA	X			X	X	X		X	
MA			X						X
MD	X			X				X	X
ME									
MI			X				X		X
MN					X		X		
MO									
MS			X			X			
MT								X	
NC					X		X		
ND					X				
NE			X						
NH						X			
NJ							X		X
NM				X			X	X	X
NV					X				
NY				X	X			X	
OH		X							
OK				X				X	
OR							X		X
PA				X				X	X
RI							X		
SC						X		X	
SD									
TN							X		X
TX					X				
UT					X	X		X	
VA						X			
VT					X				
WA									
WI						X	X	X	
WV							X		
WY			X						

Notes: The table shows years when states change the funding of Medicaid aging waivers. The data is expenditures of Medicaid aging waivers from 1998 to 2014. X indexes for the year when states change the generosity of Medicaid aging waivers.

Table 2: Medicaid HCBS Programs

<i>Home Health State Plan (Eligible for every resident)</i>
Nursing services
Home health aide services
Medical supplies, equipment and appliances
Optional therapy services like physical, occupational and speech pathology
<i>Personal Care State Plan (eligible for every resident)</i>
Assistance with self-care (e.g., bathing, dressing)
Household activities (e.g., preparing meals)
Cueing or monitoring
Injections by nurses
Work sites, foster care or assisted living facilities
<i>Medicaid Aging Waivers</i>
Round-the-clock services (in-home residential habilitation)
Home-based services like personal care, chore/homemaker and respite care
Day services (day habilitation and adult day health services)
Case management service

Notes: The table shows detailed services covered under each Medicaid HCBS authority. Mandatory home health state plan mainly covers home-based aide services and professional services to all Medicaid qualified participants. Personal care state plan provides mostly ADL and IADL help to eligible people. Aging waiver helps with more round-the-clock services that are intensive as well as ADL and IADL assistance. The colored shows some overlapping coverage among HCBS programs. The information is adjusted from the annual Kaiser Family Foundation Waiver Program Survey.