

Longitudinal patterns of public health insurance coverage  
among disability beneficiaries – early results based on  
administrative records on DI, SSI, Medicare and Medicaid

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# Motivation

- Public health insurance coverage among disability beneficiaries is important policy issue
- Two major disability programs: Disability Insurance (DI) and Supplemental Security Income (SSI) disability benefits for the nonelderly
- Complex month-to-month longitudinal patterns of SSI and DI participation reflecting interactions of program rules
- DI benefit eligibility leads to categorical eligibility for Medicare after a long waiting period
- In contrast, SSI benefit eligibility results in categorical Medicaid eligibility in most states with no waiting period
- Purpose to demonstrate and quantify how longitudinal interactions between DI and SSI affect access to and the timing of public health insurance coverage.

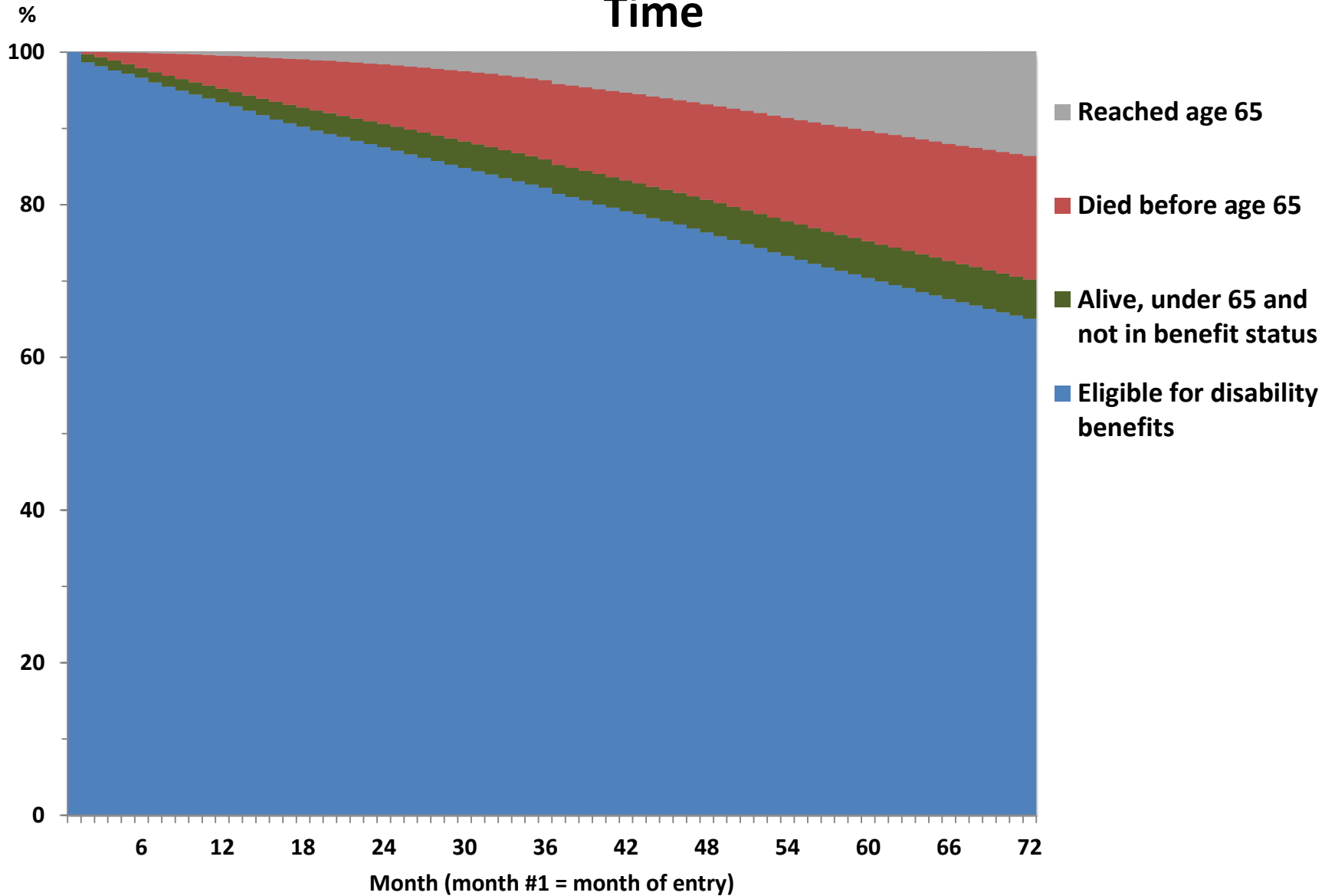
# Research strategy

- Create a longitudinal person-level file of CY2000 first-ever disability program entrants from matched administrative records
- Classify longitudinal patterns of DI and/or SSI benefit eligibility based on 72 months of data
- Analyze patterns of Medicaid and Medicare coverage as a function of longitudinal pattern and other variables
- 84 months of data, including 12 months prior to first disability award
- Ongoing and planned future work to look at patterns of cash benefit and health insurance expenditures, projected lifetime participation and benefits, and the effect of implementation factors on participation and Federal expenditures

# Analytic sample

- First-ever disability award (DI and/or SSI) in 2000
- Aged 18-64 at first award
- 10 percent sample (68,798 observations)
- Sample based on “Ticket Research File”, a massive data file compiled from several SSA data record systems, including
  - DI benefit eligibility and actual payments
  - SSI benefit eligibility and actual payments
  - Death records
  - Earnings records
- Other variables added from primary SSA data systems as needed

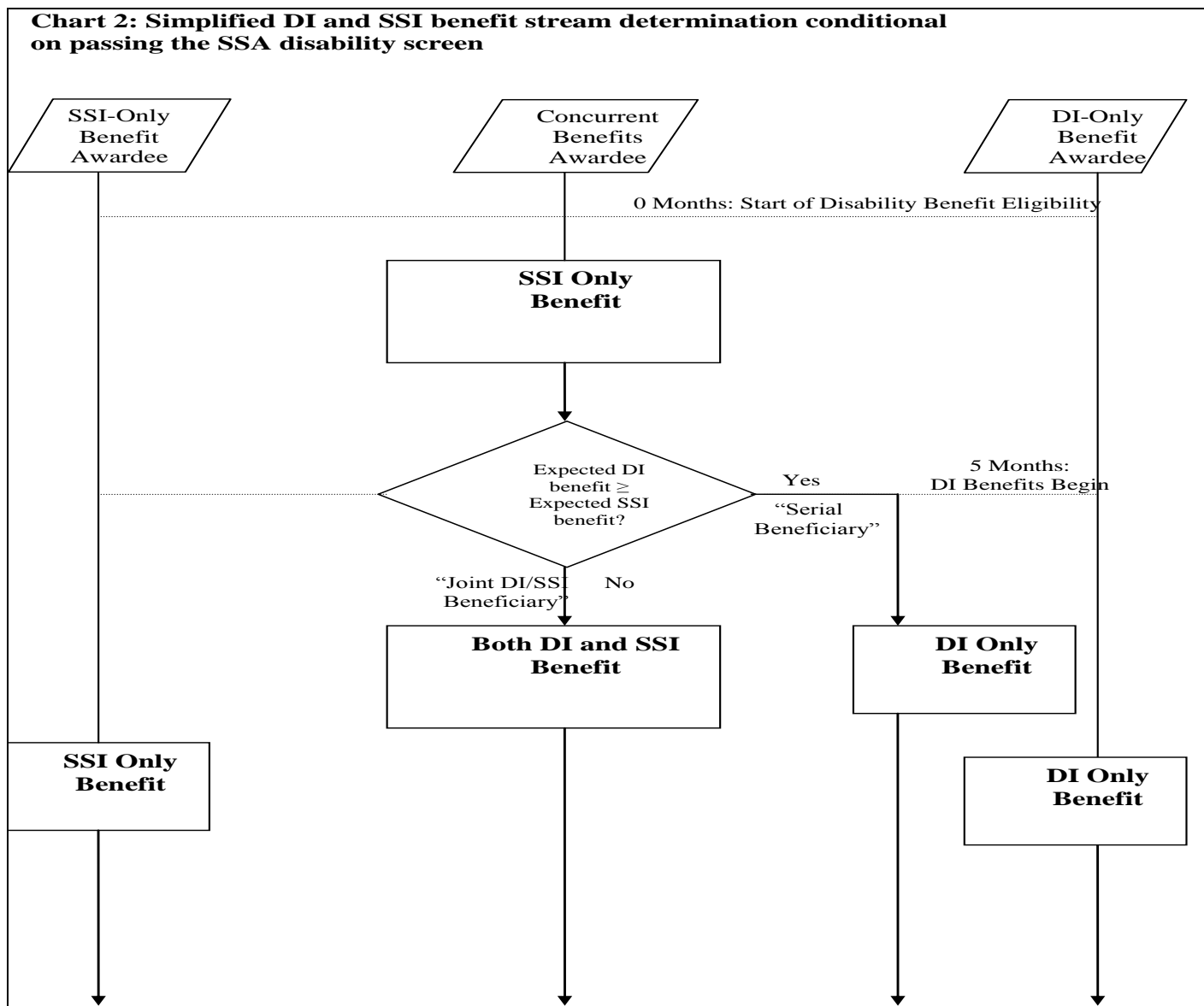
# Figure 1 Year 2000 First Disability Cohort Status over Time



# Factors affecting longitudinal patterns of DI, SSI, Medicaid and Medicare eligibility

- DI is social insurance based on earnings history, SSI is means-tested welfare program
  - but identical rules determine categorical eligibility as disabled
- 5-month DI waiting period
- DI benefits are countable income in SSI
  - High DI benefits may result in SSI income ineligibility
- Different rules affect DI and SSI exits and re-entry
- 24-month Medicare waiting period (29 months DI + Medicare)
- Categorical eligibility of SSI beneficiaries for Medicaid
- Administrative procedures limit access (e.g. delays in initial determination process, separate Medicaid application in some states)
- Rules concerning continued Medicare and Medicaid eligibility of suspended or terminated cash benefit recipients

# Figure 2 Sorting process of disability awardees



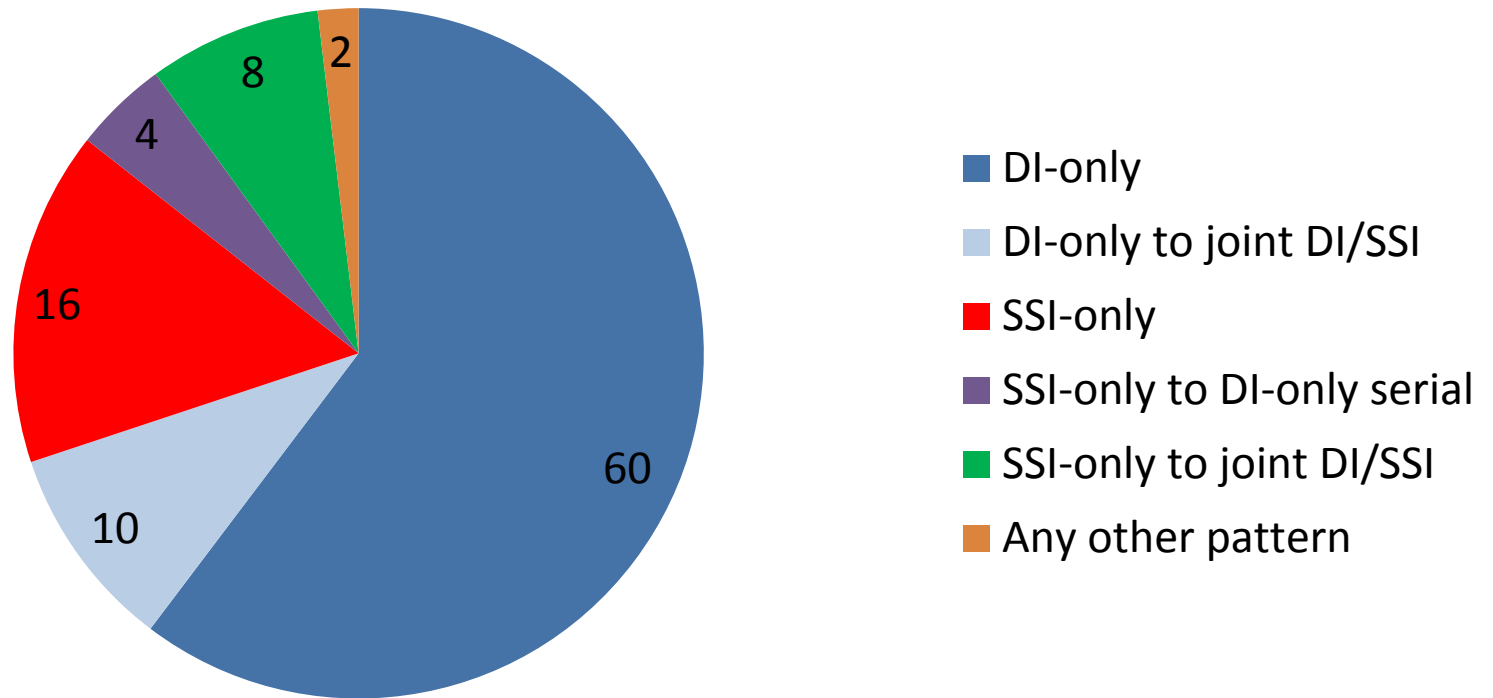
# Classification of longitudinal patterns

- Major patterns:
  - DI-only
  - SSI-only
  - “Serial” SSI-only to DI-only after 5-month waiting period
  - “Joint” SSI-only to concurrent receipt of DI and SSI
  - DI-only with subsequent SSI-entry concurrently receiving DI and SSI for one or more months
- Classification scheme results in 98 percent assigned to 5 major categories, residual 2 percent with various patterns of SSI-entry and subsequent DI involvement



# Percent distribution by longitudinal pattern

CY 2000 disability cash benefit awardees



# Characteristics of 2000 disability program entrants (N=68,798)

Age at award	
18 - 30	9.6%
31 - 45	27.4%
46 - 64	63.0%
Female	48.1 %
Nonwhite race	27.8%
Most frequent primary diagnoses	
Musculoskeletal	25.5 %
Mental	22.6 %
Circulatory	12.2 %
Neoplasms	9.2%
Nervous system	7.9%

# Medicare Data

- Matched to SSA files using SSN, date of birth, sex
- Enrollment data base (EDB)
  - Entitlement start and stop dates (complete history)
  - Demographics
- Beneficiary Annual Summary Files (1999 - 2006)
  - Total fee-for-service payments by type of service
  - Utilization measures
  - Managed care enrollment
  - Chronic condition flags

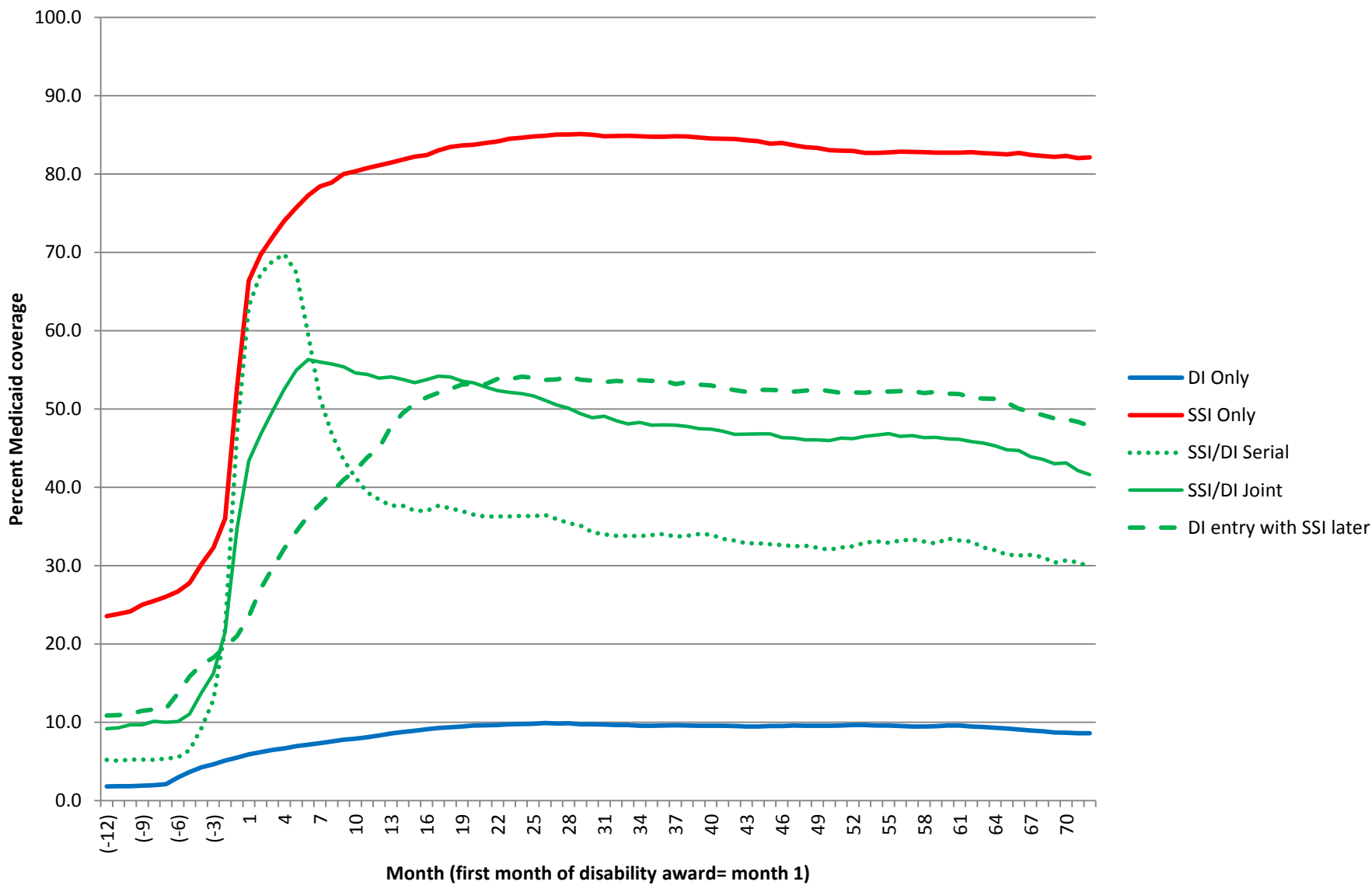
# Medicaid data

- Matched to SSA files using SSN, date of birth, sex
- Annual Person Summary Files (1999-2006)
  - Monthly Medicaid eligibility
  - Demographics
  - Total fee-for-service payments by type of service
  - Utilization measures
  - Managed care enrollment
  - Managed care payments
- Medicaid eligibility refers to full benefits

# Data Matching

- Agreement on Social Security Number  
AND
- One of following two conditions
  - Agreement on date of birth
  - Agreement on sex and 2 of 3 date of birth elements (month, day, year)
- SSA records without valid match were deemed “not covered by Medicare or Medicaid”

## Medicaid coverage by longitudinal pattern of disability program entry, survivors aged 18-64 during given month

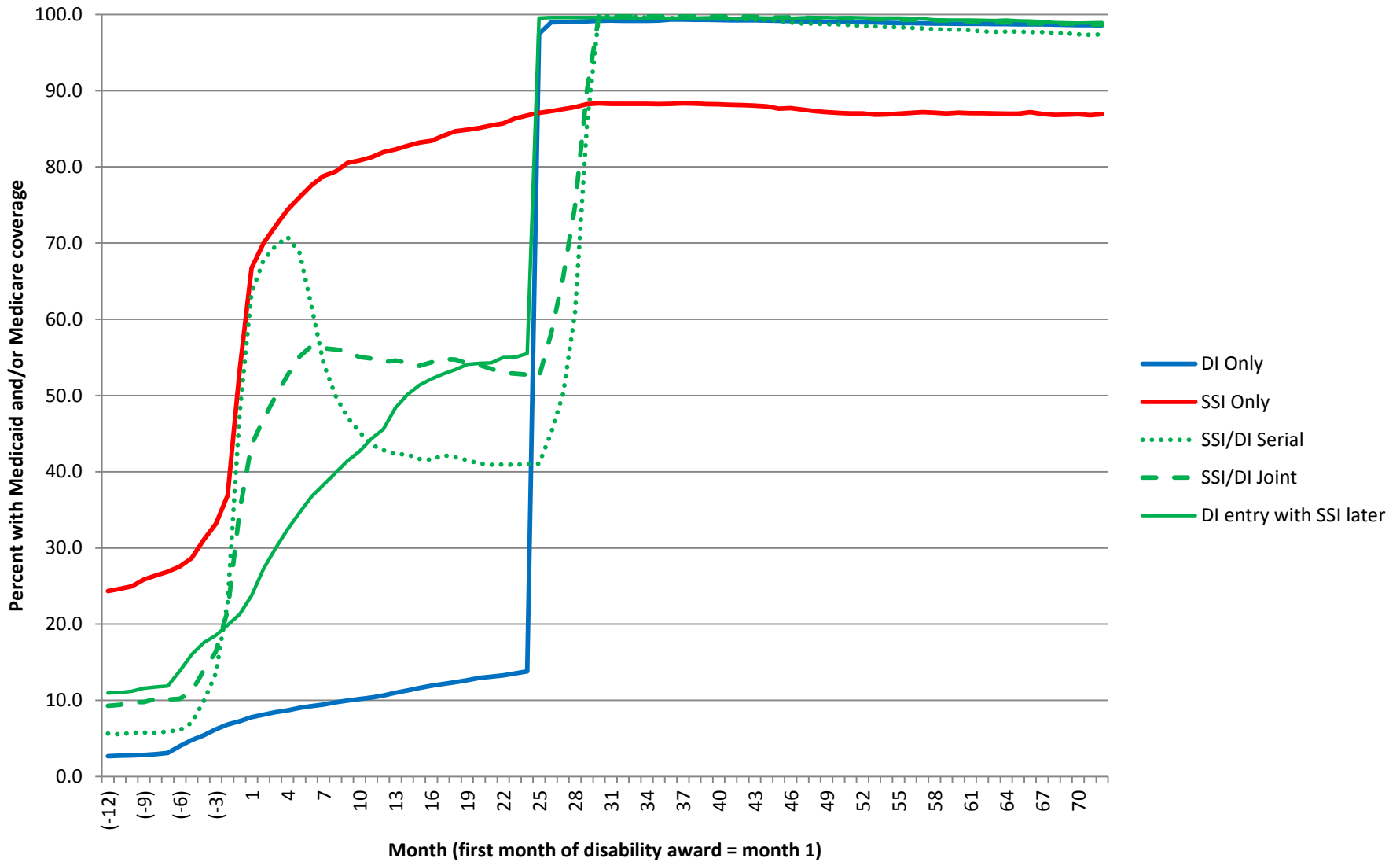


# Percent with full Medicaid coverage

## Cash benefit status at month 72

Longitudinal pattern	SSI (with or without DI)	DI without SSI	Neither SSI nor DI
SSI-only	94.6%	Not applicable	35.9%
DI-only	Not applicable	8.3%	7.4%
SSI and DI	91.6%	31.8%	17.7%

## Public health insurance (Medicaid and/or Medicare) coverage by longitudinal pattern of disability program entry, survivors aged 18-64 during given month





# Conclusions

- Medicaid is an important source of health insurance for many DI beneficiaries with some SSI involvement during the 24-month Medicare waiting period
- Some Medicaid coverage prior to SSI eligibility, especially among SSI-only cohort
- SSI eligibles who transition to DI-only status after the 5-month DI waiting period often lose full Medicaid coverage sometime before Medicare coverage begins
- Medicaid coverage among SSI-only stayers reaches about 95% after two years and stays at that level until month 72
- Only about a third of SSI-only eligibles who left the disability rolls were covered by Medicaid in month 72

# Conclusions (cont.)

- Public health insurance coverage is uneven in first 2 years because of Medicare waiting period
- Nearly all DI beneficiaries have health insurance through Medicare after 2 years
  - Most with SSI involvement have both Medicare and Medicaid coverage
- Although most DI eligibles who lose benefits due to work are guaranteed continued Medicare coverage for 93 additional months, relatively few leave the DI rolls

# References

- Riley GF. 2006. Health insurance and access to care among Social Security Disability Insurance beneficiaries during the Medicare waiting period. *Inquiry* 43(3):222-230.
- Rupp K, Davies PS, and Strand A. 2011 Disability Benefit Coverage and Program Interactions in the Working-Age Population. *Social Security Bulletin* 68(1):1-30.
- Rupp K, Riley GF. Longitudinal patterns of Medicaid and Medicare coverage among disability cash benefit awardees. Forthcoming, *Social Security Bulletin*.
- Rupp K, Riley GF. 2011. Longitudinal patterns of participation in the Social Security Disability Insurance and Supplemental Security Income cash benefit programs for people with disabilities. *Social Security Bulletin* 71(2):25-51.