THE UNIVERSITY OF CHICAGO
STONE CENTER FOR RESEARCH ON WEALTH INEQUALITY AND MOBILITY
Harris School of Public Policy

Intergenerational Religious Persistence in the United States

Kristina Butaeva[1] Renato de Angelis[1] Steven N. Durlauf[1] Weiqi Wang[1]

[1]Harris School of Public Policy
Stone Center for Research on Wealth Inequality and Mobility
University of Chicago

November 14, 2026

Motivation

- **Religion is central to American culture**: evangelical Protestantism (FitzGerald, 2017) and rising nonbelief (Campbell, Layman, and Green, 2020).
- **The religious composition has shifted**: the Christian share has declined and nonaffiliation has risen (Smith et al., 2025).
- In the GSS, the **currently unaffiliated rise from about 4% to 30%** across cohorts born 1925–84.
- **Our goal**: measure how intergenerational persistence in affiliation has changed, as background facts for assessing how (non)religion and society interact.

Literature and Contribution

- **Trends**: American religious decline has advanced through cohort replacement (Voas and Chaves, 2016), though intense religiosity may persist as moderate religiosity erodes (Schnabel and Bock, 2017). Falling Catholic persistence among the U.S.-born has been offset by immigration (Hout, 2016).
- **Mechanisms**: political backlash against the religious right (Hout and Fischer, 2002), cumulative failure of intergenerational transmission (Voas, 2008), and declining institutional credibility after scandals (Hungerman, 2013).
- **Theory**: secularization is staged and heterogeneous rather than uniform (Stolz et al., 2025), and late-stage secularity may become positively institutionalized rather than residual (Watts and Wilkins-Laflamme, 2026).

This paper uses Markov chain measures that separate movement from memory to document how intergenerational religious persistence has changed for U.S. individuals born 1925–84, and how it differs by region, party, and sex.

Stochastic Processes for Mobility

- We employ **Markov chain** methods to study intergenerational persistence in religion.
- This is a longstanding strategy for social class mobility measurement originated from the sociology literature.

  Prais (1955); Bartholomew (1967); Song (2021); Boudon (1973); Dardanoni (1993).
- Within this approach, we conceptualize mobility in two distinct ways:

Mobility as

Movement

the deviation of descendants' religious affiliation from their ancestors' religious affiliation.

Mobility as

Memory Decay

the dissipation of the influence of ancestors' religious affiliation on that of their descendants.

Markov Chain Framework

We analyze persistence using measures based on **"synthetic dynasties"** represented in Markov chains, relying on observed transition probabilities across religious denominations.

$\boldsymbol{P}$: $n \times n$ **transition matrix**, P_{ij} = prob. of moving from denomination i to denominations j

π_p: **marginal distribution** of parental origins $\Rightarrow$ children's distribution: $\boldsymbol{\pi}_c = \boldsymbol{\pi}_p \cdot \boldsymbol{P}$

- **Stationary chain** — successive generations:

$$\boldsymbol{\pi}_t = \boldsymbol{\pi}_{t-1} \cdot \boldsymbol{P} = \boldsymbol{\pi}_0 \cdot \boldsymbol{P}^t$$

- **Convergence** — if $\boldsymbol{P}$ is **primitive**, as $t \to \infty$:
  - marginal distribution converges to a **steady-state** $\boldsymbol{\pi}_\infty$;
  - transition matrix converges to $\boldsymbol{P}^t \to \boldsymbol{P}^\infty$, with every row equal to $\boldsymbol{\pi}_\infty$.

Key Metrics of Movement

- **Overall Mobility**:

$$OM_t = 1 - \sum_i \pi_{i,t-1} \cdot P_{ii} \tag{1}$$

Captures the **total amount of movement** between religious denominations from one generation to the next.

Matras (1961); Broom and Jones (1969); Featherman, Jones, and Hauser (1975).

- **Steady-State Mobility**:

$$SSM = 1 - \sum_i \pi_{i,\infty} \cdot P_{ii} \tag{2}$$

Movement that persists **once the religious composition has stabilized**: isolates mobility not driven by distributional shifts.

Butaeva et al. (2026).

Structural vs Exchange Mobility

- **Structural Mobility**:

$$SM_t = \frac{1}{2} \cdot \sum_i |\pi_{i,t-1} - \pi_{i,t}|. \tag{3}$$

It captures the **movements** necessitated by **shifts in the marginal distribution** of religious denominations from generation $t-1$ to t.

- **Exchange Mobility**:

$$EM_t = OM_t - SM_t. \tag{4}$$

Defined residually as the difference between overall and structural mobility.

Featherman and Hauser (1978); Erikson and Goldthorpe (1992); Sobel (1983); Sobel, Hout, and Duncan (1985); McClendon (1977).

Category-specific Movement Measure

- **Mean time to exit** from each origin religious denomination:

$$MTE_i = (1 - P_{ii}) \cdot \sum_{t=1}^{\infty} t \cdot P_{ii}^{t-1}. \tag{5}$$

Represents the expected **number of generations** it takes for descendants **to leave** origin category i. Higher values reflect lower chances of movement away from the category, while lower values signal a greater likelihood of departure.

Kemeny and Snell (1976).

Key Metrics of Memory

- **Aggregate Intergenerational Memory**:

$$AIM_t = \frac{1}{2} \sum_{i,j} |P^t_{ij} - \pi_{j,\infty}| \cdot \pi_{i,0} \tag{6}$$

  Captures the deviation of $\boldsymbol{P}^t$ from the limiting matrix $\boldsymbol{P}^\infty$, whose rows all equal $\boldsymbol{\pi}_\infty$.

- **Individual Memory**:

$$IM_{i,t} = \frac{1}{2} \sum_{j} |P^t_{ij} - \pi_{j,\infty}| \tag{7}$$

  Category-specific memory curve; by construction AIM_t is the $\pi_{i,0}$-weighted average of $IM_{i,t}$ across origin religious denominations.

- **Mixing Time**: $t_{mix} = \min\{t : \frac{1}{2} \max_{i,k} \sum_j |P^t_{ij} - P^t_{kj}| \leq 0.01\}$, the **generations until origin no longer predicts destination**.

  Blume et al. (2025).

Data

- **General Social Survey**, 1973–2024 (Davern et al., 2025).
  - 2021 excluded: the online-only wave under-represented the most religious (Schnabel, Bock, and Hout, 2024).
- **Origin**: religious tradition at age 16 (`RELTRAD16`).
  Destination: current tradition (`RELTRAD`).
- **Sample**: born 1925–84, interviewed at ages 30–75; six 10-year birth cohorts.
- $n = 38{,}778$ respondents; cohort sizes range from 2,789 to 9,877.
- Unit of analysis: an individual's transition from upbringing to adult affiliation, *not* a parent–child pair.

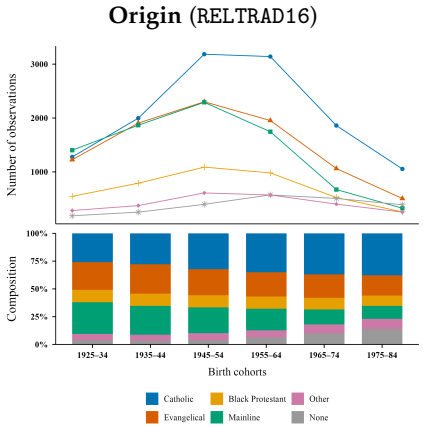
Six Religious Categories

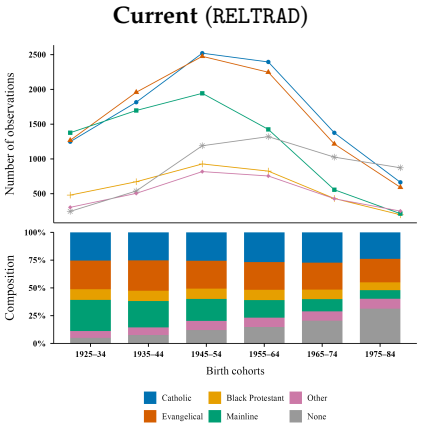
RELTRAD typology (Steensland et al., 2000), collapsed to six states:

Category	RELTRAD groups mapped in
Catholic	Catholic
Evangelical	Evangelical Protestant
Black Protestant	Black Protestant
Mainline	Mainline Protestant
Other	Other religion, Jewish
None	Unaffiliated

Black Protestant is kept distinct; Jewish is merged into Other to avoid sparse cells.

Sample Composition





None rises from 3–4% to 13% of origins, and from 4% to 30% of current affiliations.

Transition Matrices and Steady States: Main Takeaways

- **None retention rises** from 0.26 to 0.72, the highest share in the most recent cohort.
- **Outflows to None rise from every affiliated tradition**, reaching 0.25–0.34 for Catholic, Mainline, and Other.
- **Affiliated retention falls**: Catholic 0.85 to 0.60; Mainline 0.74 to 0.48, Black Protestant 0.83 to 0.70; Evangelical stable near 0.75 until a dip to 0.68.
- **Catholic and Mainline receive almost no inflow**; Evangelical has the highest inflows of any affiliated tradition.
- **Steady states polarize**: None becomes the largest category for the 1975–84 cohort, Evangelical stays stable, and Catholic and Mainline collapse.

Transition Matrices by Birth Cohort



Reading the matrices

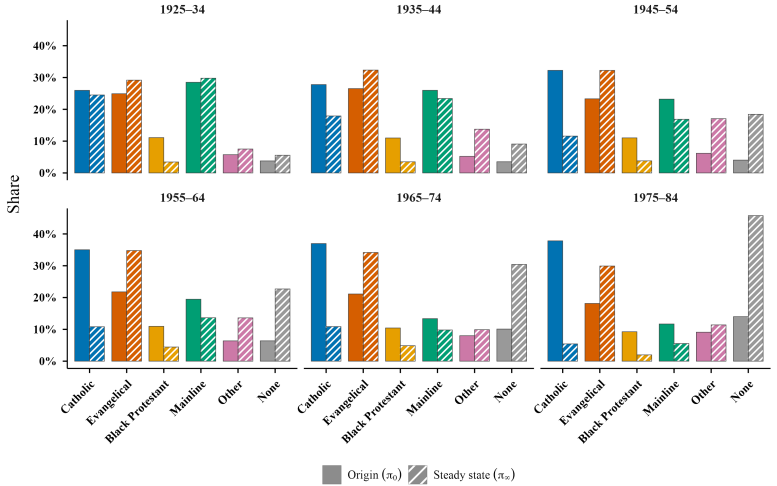
Rows: childhood religion

Columns: current religion

Cells: $p_{ij} = \Pr(\text{current } j \mid \text{origin } i)$

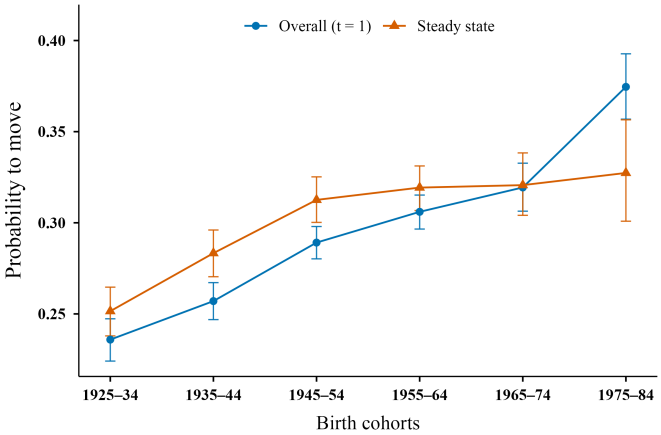
Diagonal: retention

Origin vs. Steady-State Distributions



Solid: origin π_0. Striped: steady state π_∞ implied by holding each cohort's P fixed.

Overall vs. Steady-State Mobility

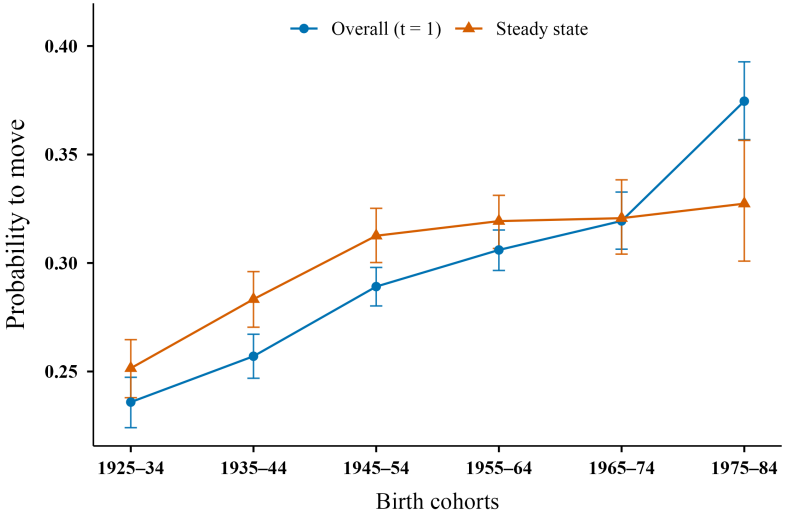


- **Observed mobility rises, steady-state mobility plateaus**
- The steady state is weighted toward high-retention None and Evangelical, suggesting a more sorted, less mobile long run.

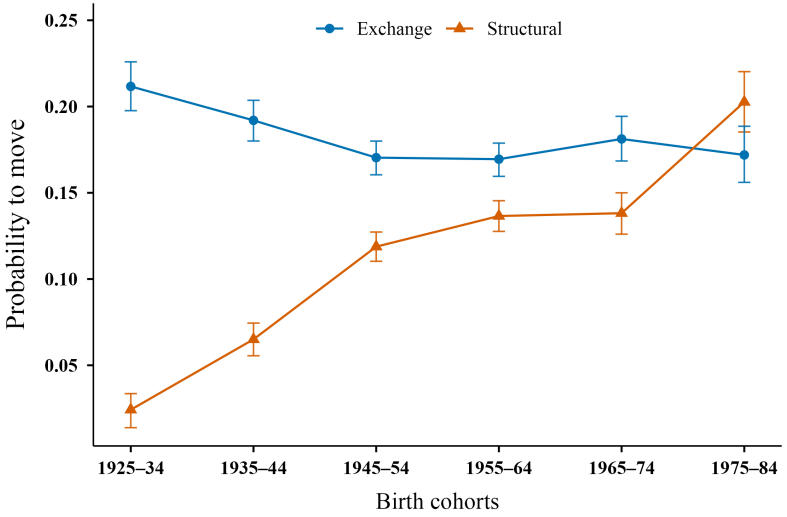
Movement: Main Findings

- **Overall mobility rises** from 0.24 to 0.37, almost entirely through **structural mobility**, i.e. reallocation toward None.
- **Exchange mobility is roughly flat** after an early decline.
- **Steady-state mobility plateaus**; by the 1975–84 cohort observed mobility exceeds it, implying a more sorted, less mobile long run.
- **Catholic and Mainline become easier to leave** (mean time to exit 6.7 to 2.5 and 3.8 to 1.9 generations); **None becomes harder to leave** (1.4 to 3.6), now comparable to the most persistent traditions.

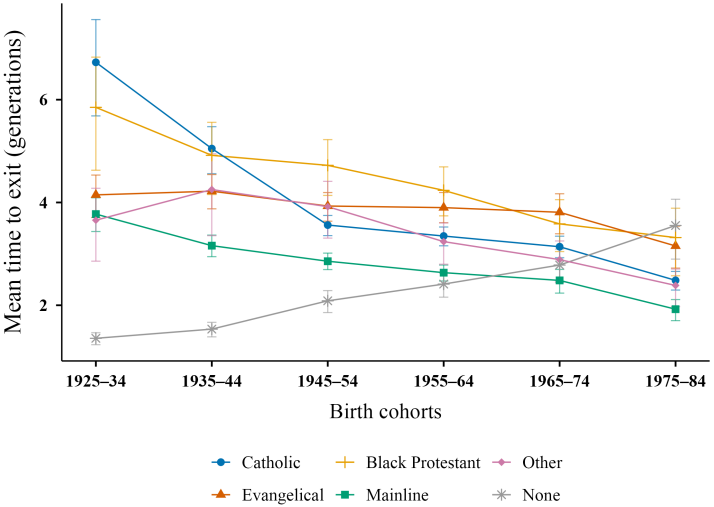
Overall vs. Steady-State Mobility



Structural vs. Exchange Mobility



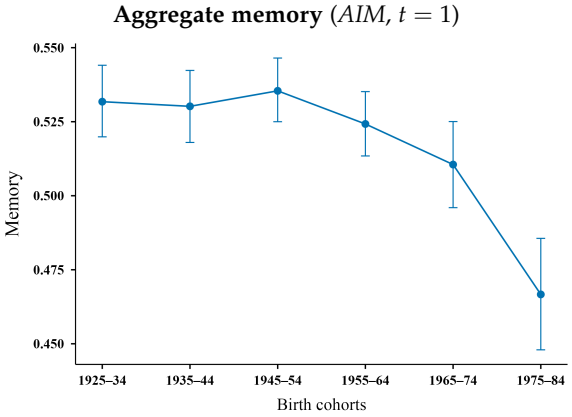
Mean Time to Exit

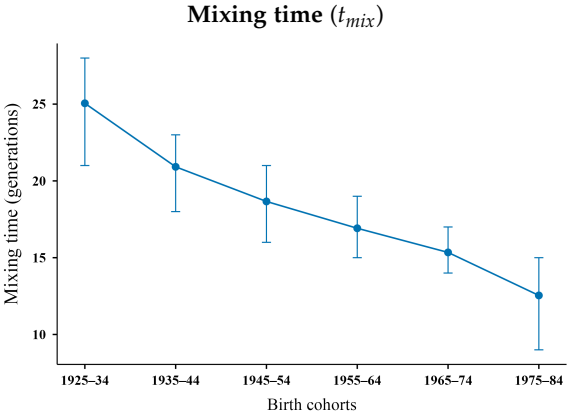


Memory: Main Findings

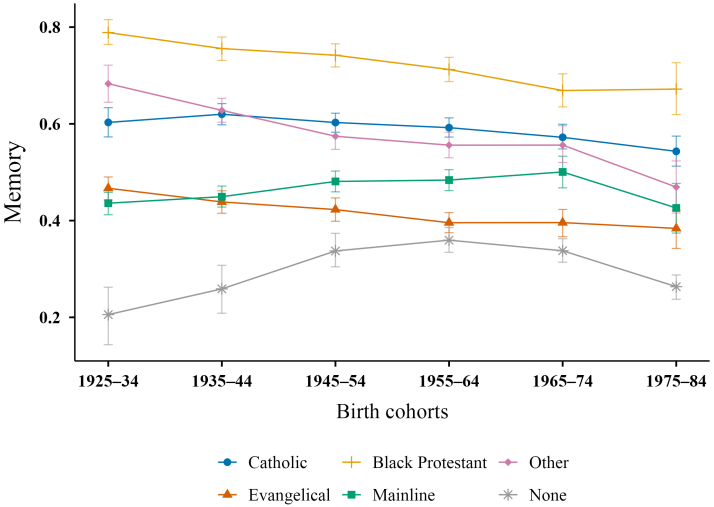
- **Aggregate memory falls**: flat through the mid-century cohorts, then sharply lower by the 1975–84 cohort. Religious origin predicts adult affiliation less.
- **Mixing time roughly halves**, from about 25 to 13 generations, at a steady pace.
- **Black Protestant has the highest memory** in every cohort.
- **None has the lowest memory**, reflecting closeness to a None-heavy steady state, *not* frequent exit.

Aggregate Memory and Mixing Time





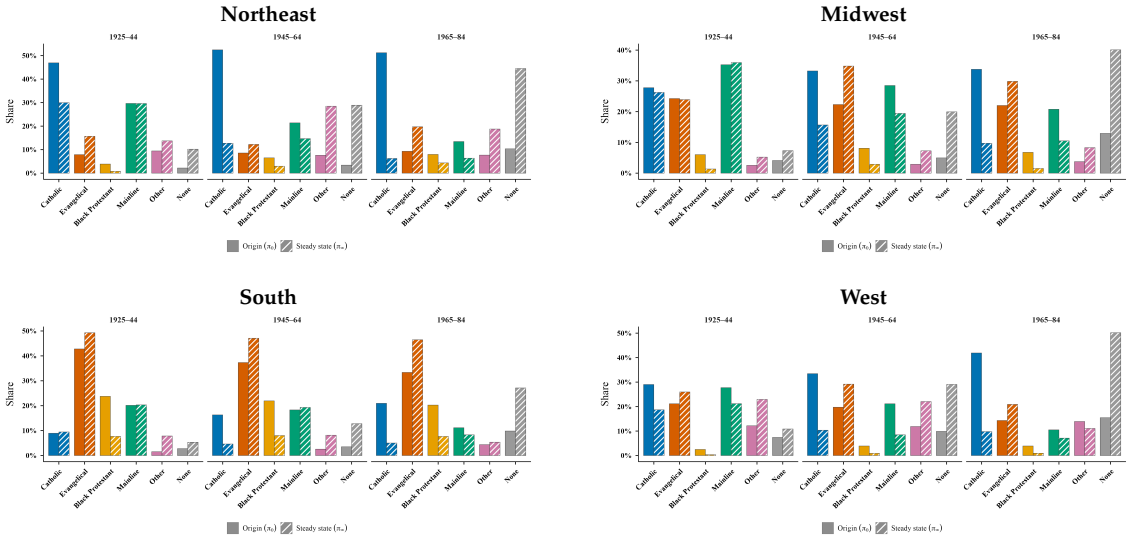
Memory by Origin



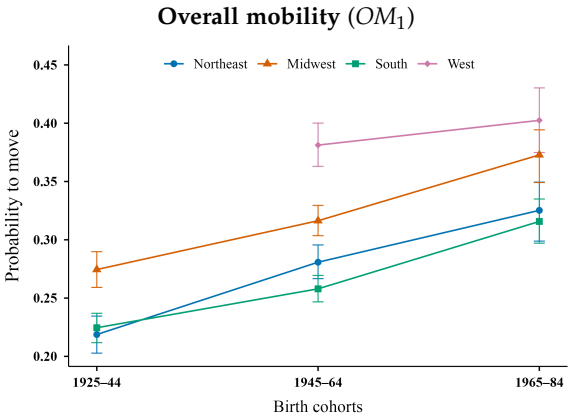
Region: Main Findings

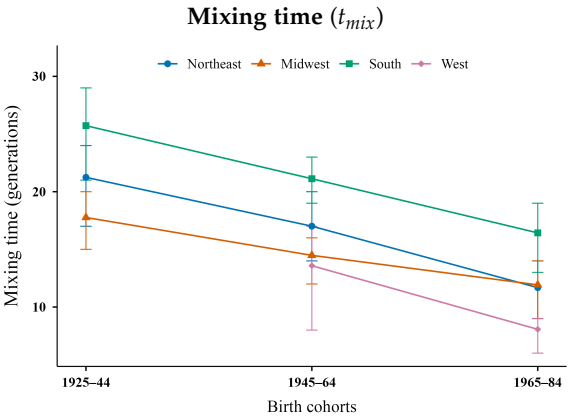
- **Polarization toward None and Evangelical appears in every region**, though at different rates and starting from different bases.
- **The South is most persistent** (t_{mix} 26 to 16): Evangelical holds 0.46–0.49 of the steady state, still above None.
- **The West is most mobile** (t_{mix} 14 to 8): None reaches half of the steady state.
- **The Northeast's Catholic share collapses**: 0.51 of origins in 1975–84 cohort, but 0.06 of the steady state.

Origin vs. Steady-States Distributions by Region



Movement and Memory by Region



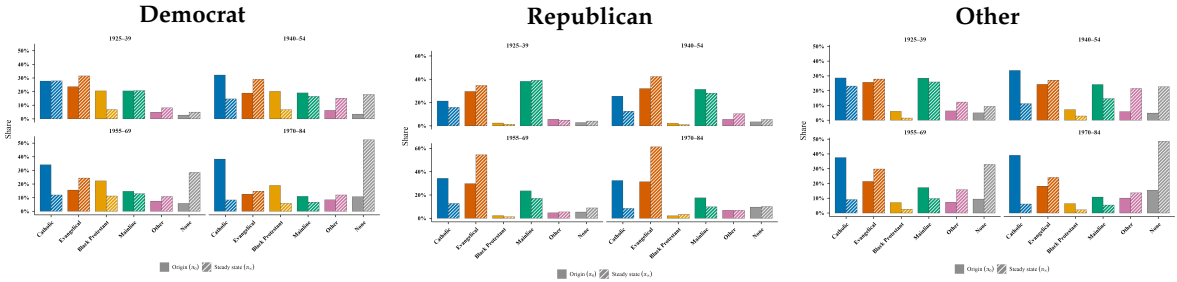


Political Party: Main Findings

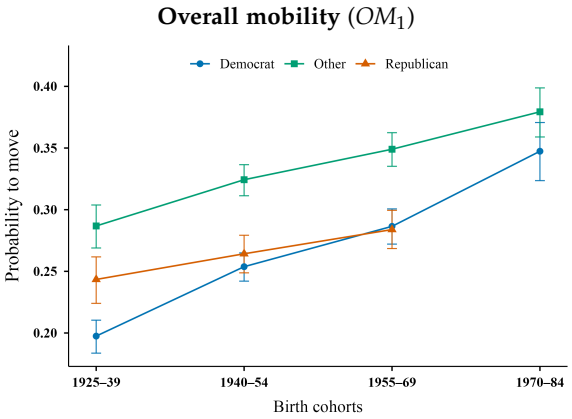
- **Current Democrats**: None's steady-state share rises from 0.19 to 0.52 (between 1940–54 and 1970–84).
- **Current Republicans**: Evangelical's steady-state share rises from 0.42 to 0.54 (1940–54 to 1955–69), with None near 0.10.
- **Democrats are the most persistent group** (t_{mix} 32 $\rightarrow$ 15), partly reflecting Black Protestant composition.
- Party is measured at the survey, so we read this as growing alignment of partisan and religious identities, not partisan lineages.

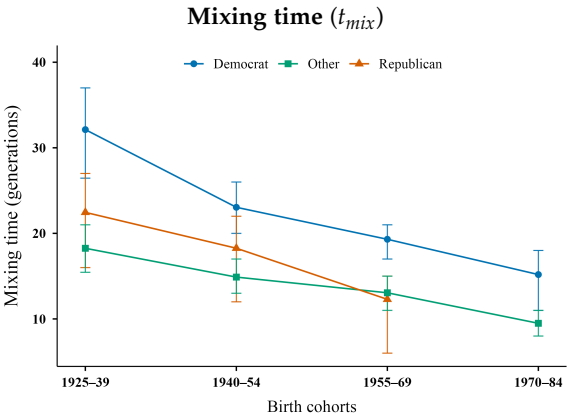
15-year birth cohorts.

Origin vs. Steady-State Distributions by Party



Movement and Memory by Party



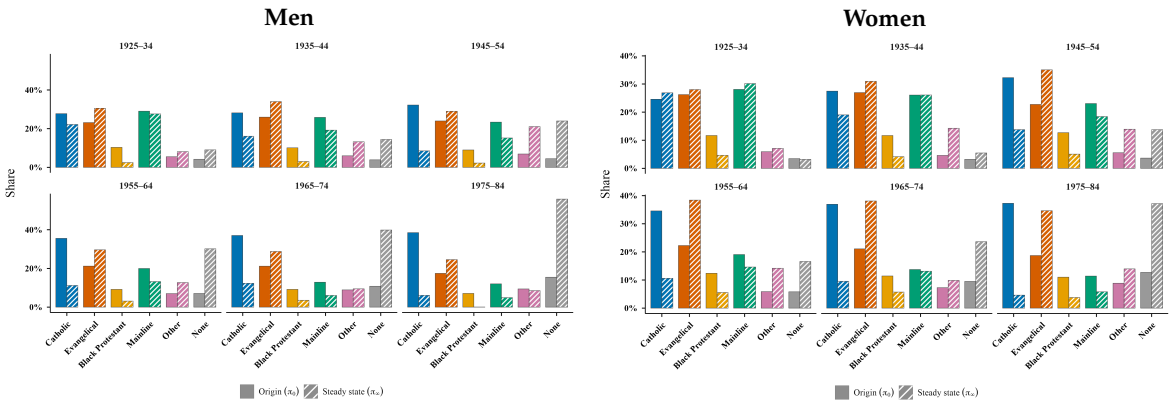


Sex: Main Findings

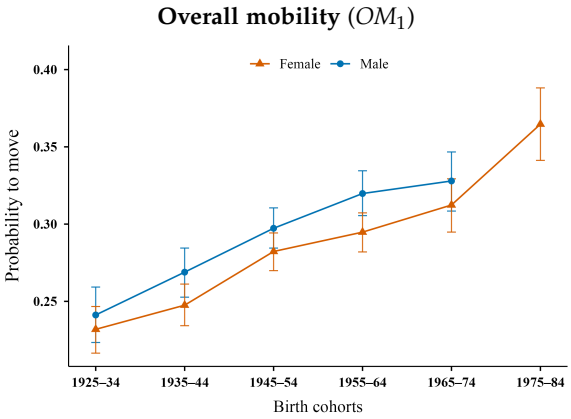
- **The same polarization holds for both sexes**; men are slightly more mobile in every reported cohort.
- **Women's mixing times are higher in early cohorts**, though the intervals overlap throughout.
- **Different destinations**: in the 1965–74 cohort, None is 0.40 of men's steady state vs. 0.24 of women's; Evangelical is 0.38 of women's vs. 0.29 of men's.

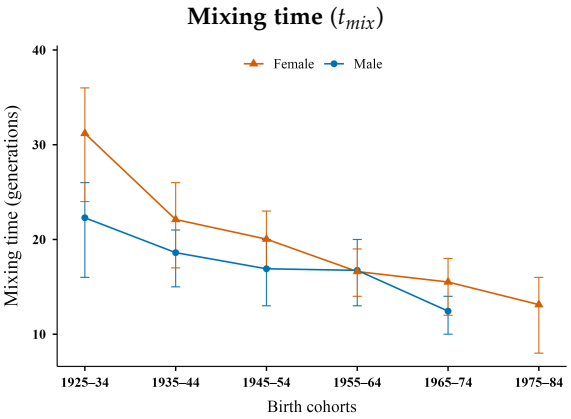
10-year birth cohorts.

Origin vs. Steady-State Distributions by Sex



Movement and Memory by Sex





Conclusions

- **Persistence of religious affiliation has decreased across cohorts**, with the exception of Evangelicalism.
- **Steady states sort around None and Evangelical**
- **None went from the least to the most persistent origin, with rising inflows**; Evangelical keeps high retention and the highest inflows of any affiliated tradition
- **Partisan religious sorting**: Democrats move toward None, Republicans toward Evangelical.

Limitations and Future Directions

Limitations

- Closed population: no migration, mortality, or fertility.
- Too small for a fully race-stratified analysis.
- Cross-sections can't separate stable nonaffiliation from churn (Lim, MacGregor, and Putnam, 2010).
- Measures show pace and direction, but omit mechanisms.

Future directions

- Richer data with migration, fertility, and mortality by affiliation.
- The transmission dynamics of nonaffiliation.
- Moving from measurement to the mechanisms behind each cohort's transition regime.