

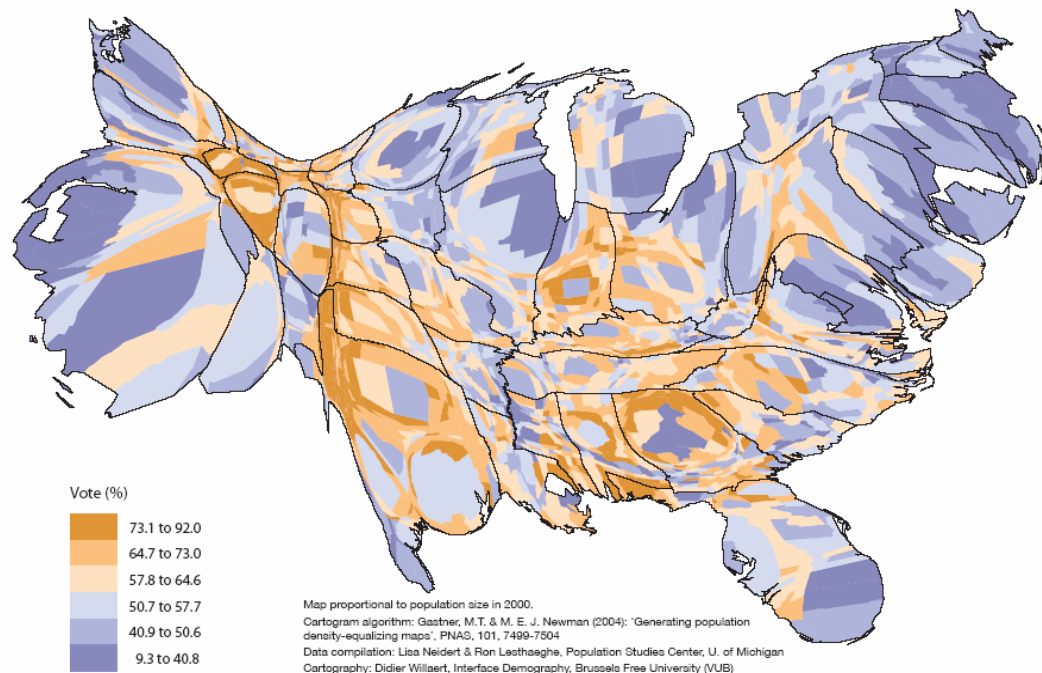
The Second Demographic Transition in the US : Exception or Textbook Example ?

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Population cartogram of the percentage vote for G.W. Bush in the presidential elections of 2004



Contrast first & second demographic transitions

- FDT
 - EARLIER MARRIAGE
 - LOW + DECLINING COHABITATION
 - LOW DIVORCE
 - HIGH REMARRIAGE
 - FERTILITY CONTROL AT HIGHER AGES
 - DEFICIENT CONTRACEPTION, PARITY FAILURES
 - DECLINING ILLEGITIMACY
 - LOW CHILDLESSNESS
- SDT
 - LATER MARRIAGE
 - RISE COHABITATION, RISE SINGLE LIVING
 - RISE DIVORCE
 - LOW REMARRIAGE
 - FERTILITY POSTPONEMENT
 - EFFICIENT CONTRACEPTION
 - RISING EXTRA-MARITAL FERTILITY
 - HIGHER CHILDLESSNESS

FDT -SDT : SOCIAL & CULTURAL CONTRASTS

- **Preoccup. basic material needs, income security**
- **Solidarity, equity**
- **Mobilization polit., relig., ethn.,civic networks (“pillarization”)**
- **Strong normative regulation**
- **Ordered life course transitions**
- **Dominance single family model (breadwinner), segregated gender roles, embourgeoisement**
- **Rise non-material needs (self-actualization, recognition, ...)**
- **Expressive values, tolerance**
- **Decline classic forms social capital (“depillarization”)**
- **Primacy of individual autonomy : ethical, economic, social; rejection authority**
- **Destandardization life course, open future**
- **Multiple models of living arrangements, more symmetric gender roles**

R and W and A

- Ready = new behavior must be advantageous (conscious cost/benefit calculus)
- Willing = new behavior must be ethically acceptable (religious and moral legitimacy)
- Able = there must be technical means for its realization (material, legal, organizational, often at macro level)

COALE'S PRECONDITIONS FOR DEMOGRAPHIC INNOVATION

- **READY = ECONOMICALLY ADVANTAGEOUS**
- **WILLING = CULTURALLY ACCEPTABLE**
- **ABLE = MEANS AVAILABLE**

$$\mathbf{S = R \text{ and } W \text{ and } A}$$

The slowest moving condition can become a bottleneck.

From 3 conditions to a dynamic model
(Lesthaeghe-Vanderhoeft 2001 conceptualization)

- Shifting/overtaking distributions of resp. R, W and A in a population over time
- The distribution of “minima” is what matters.
- No longer an opposition between the economics and the sociology of behavior.
- RWA can lead to Verhulst’s logistic growth curve

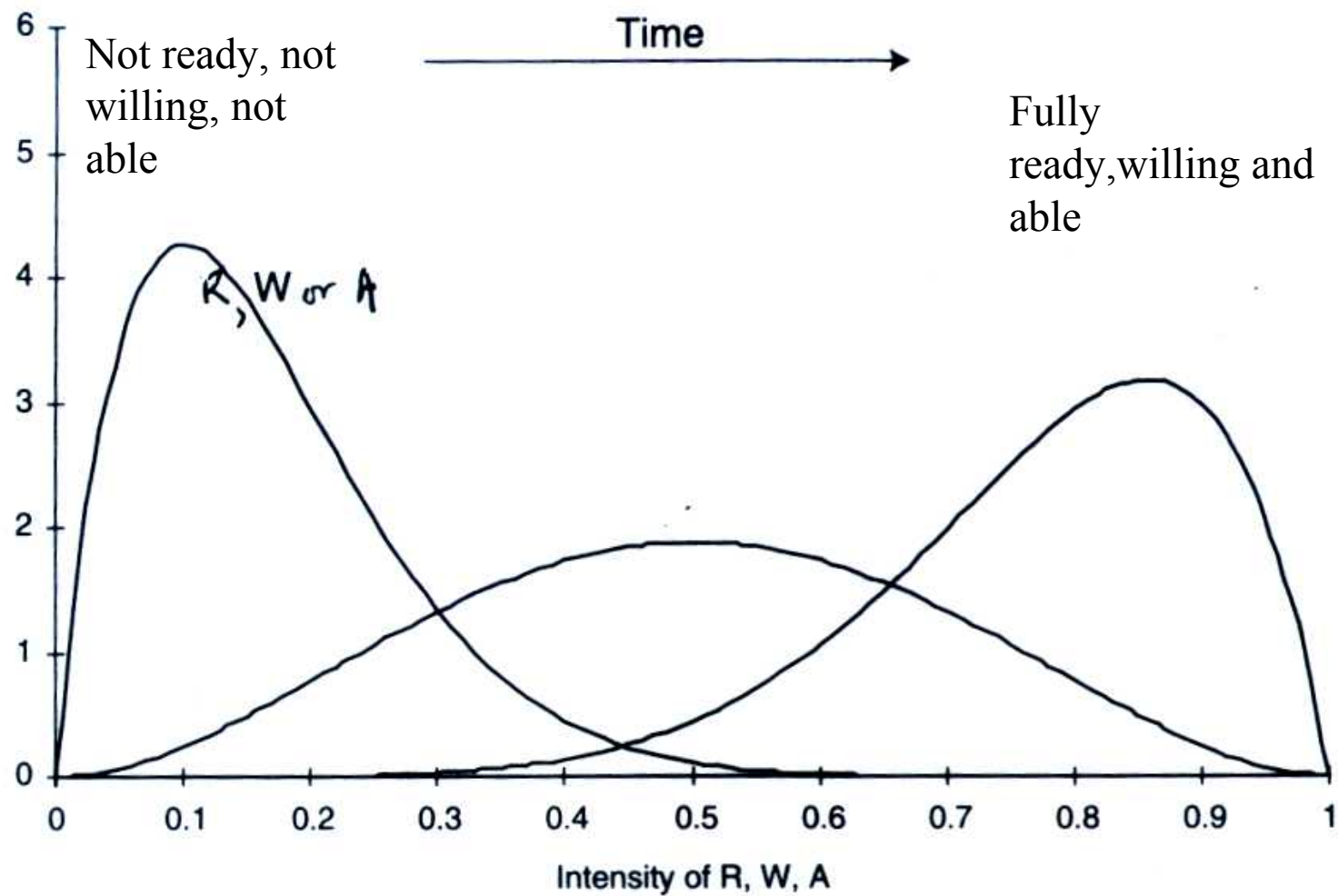


FIGURE 8-1 Shift over time of the beta distribution of the intensity of either R, W, or A from low (less than 0.5) to high (greater than 0.5).

$$S_i = \text{Min. } (R_i, W_i, A_i)$$

Example 1: the upper tails of the three distributions are already in the zones with values greater than 0.5, yet nobody will adopt the new form of behavior

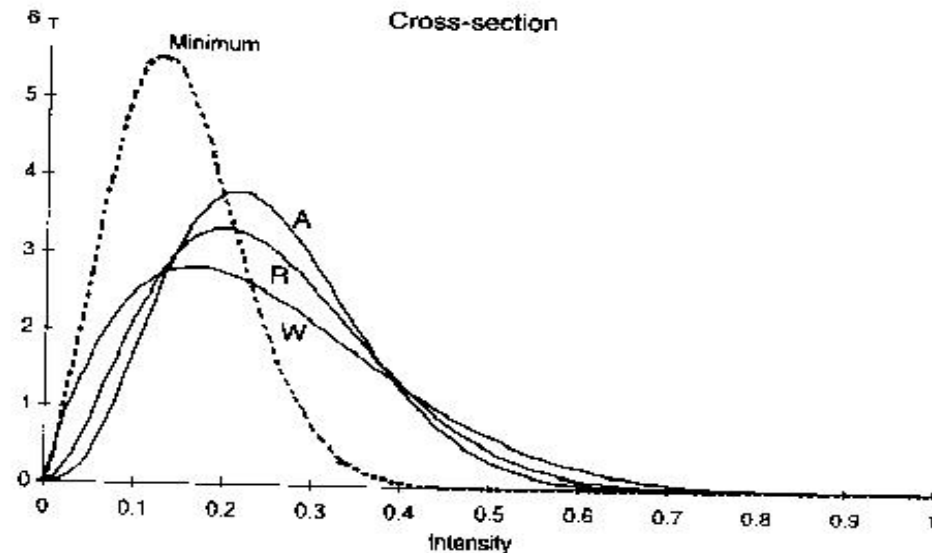


FIGURE 8-3 Location of W (left), R (middle), and A (right) at one point in time (second example) and location of the distribution of the minimum (R_i, W_i, A_i) (=dotted line).

Example 2 : For 85 %,"ability" is no longer the problem, and 50% is convinced of the advantages of the new form. Yet, less than a quarter will adopt it. Reason : slow adaptation of "willingness" is producing a bottleneck.

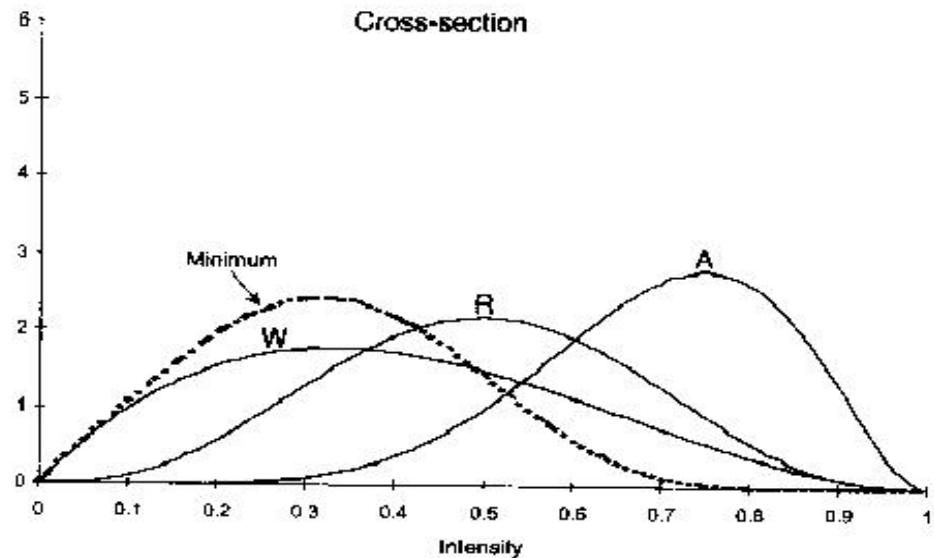


FIGURE 8-4 Location of W (left), R (middle), and A (right) at one point in time (third example) and location of the distribution of the minimum (R_i, W_i, A_i) (=dotted line).

RWA and regression techniques ...

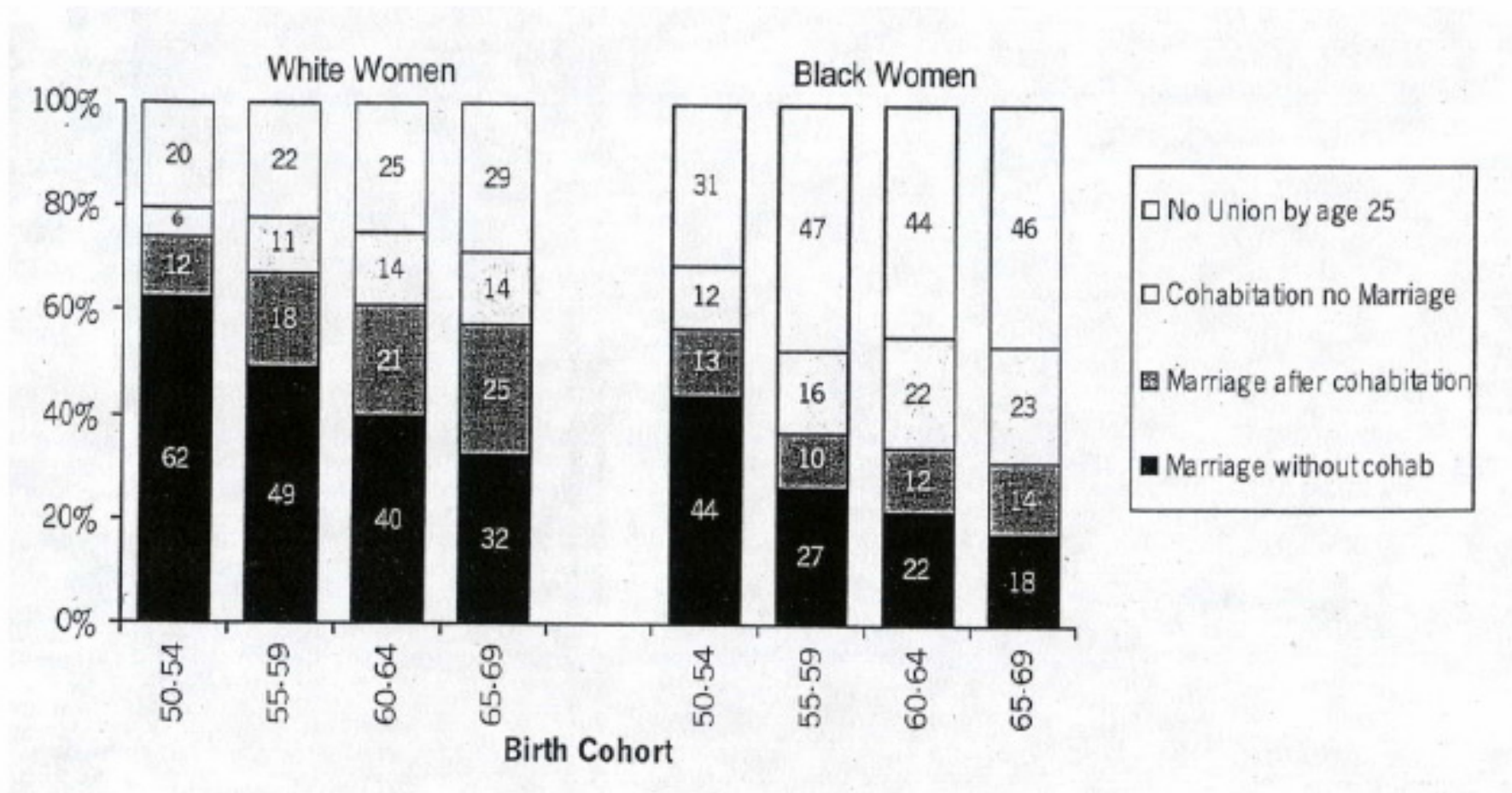
- Covariates with the stronger predictive power in regression analyses with cross-sectional data only point out which condition is the **slowest moving** one. The conclusion that the process is **driven** by economic resp. cultural factors because the best performing covariates are of an economic resp. cultural nature is erroneous.

Anything like that in the USA ?

A geography of willingness ?

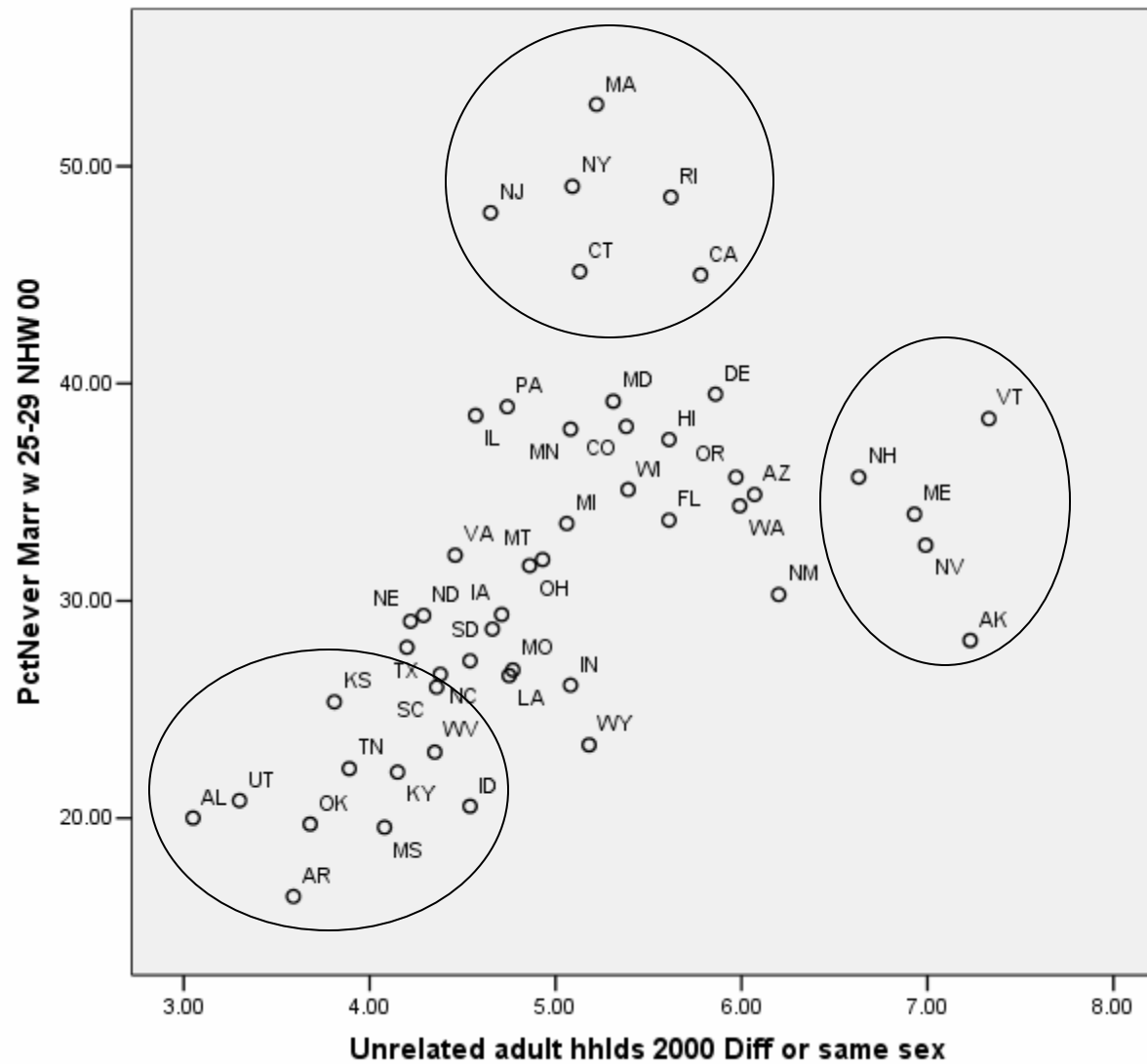
Union status by age 25 : changes in US white and black birth cohorts.

(US Natl. Survey of Family Growth 1995, R.K. Raley 2000)



Location of 50 US states, 2000, re :

Y. percentages never married non-hisp. white women, X. percent of households cohabiting.



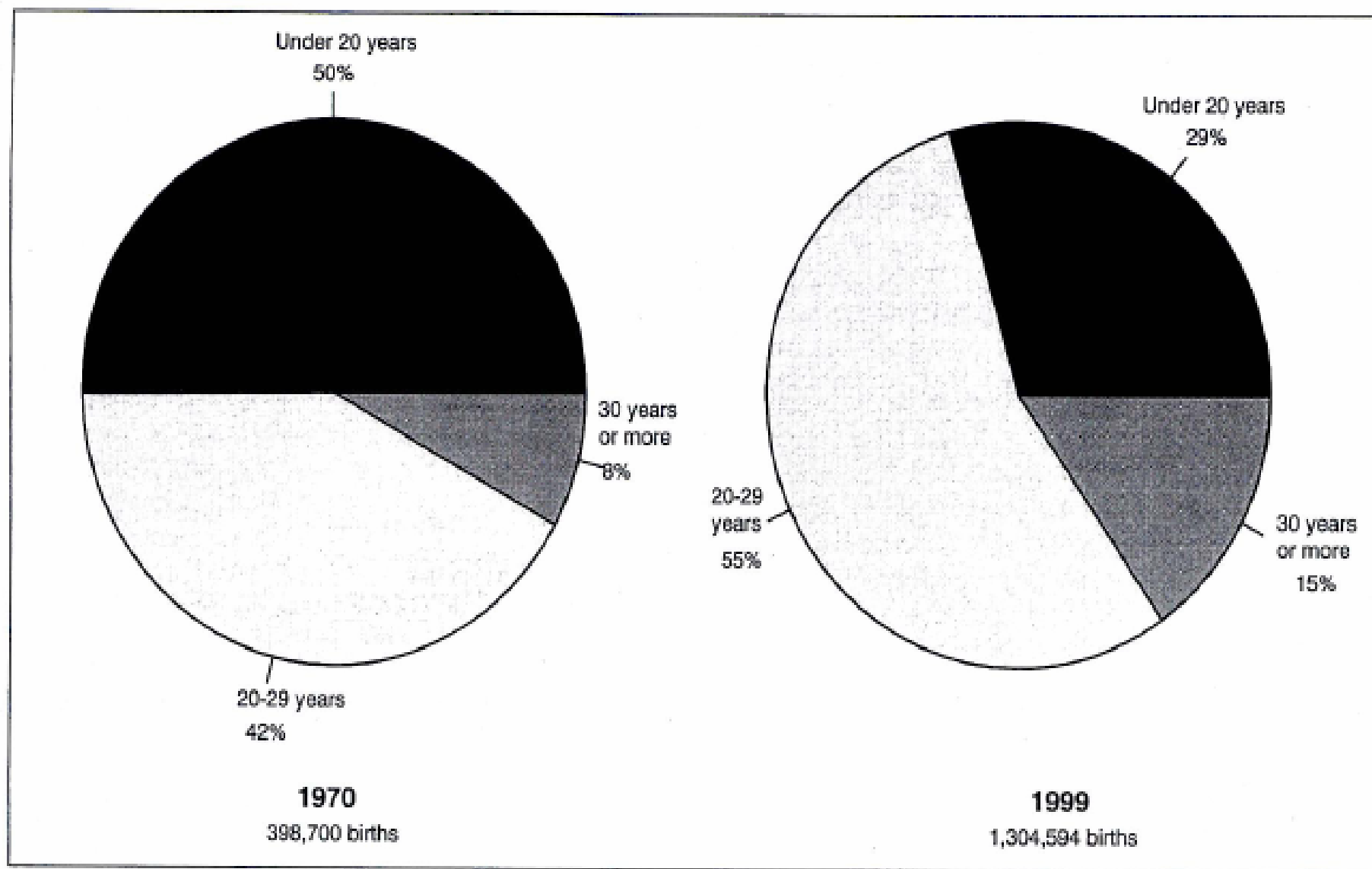


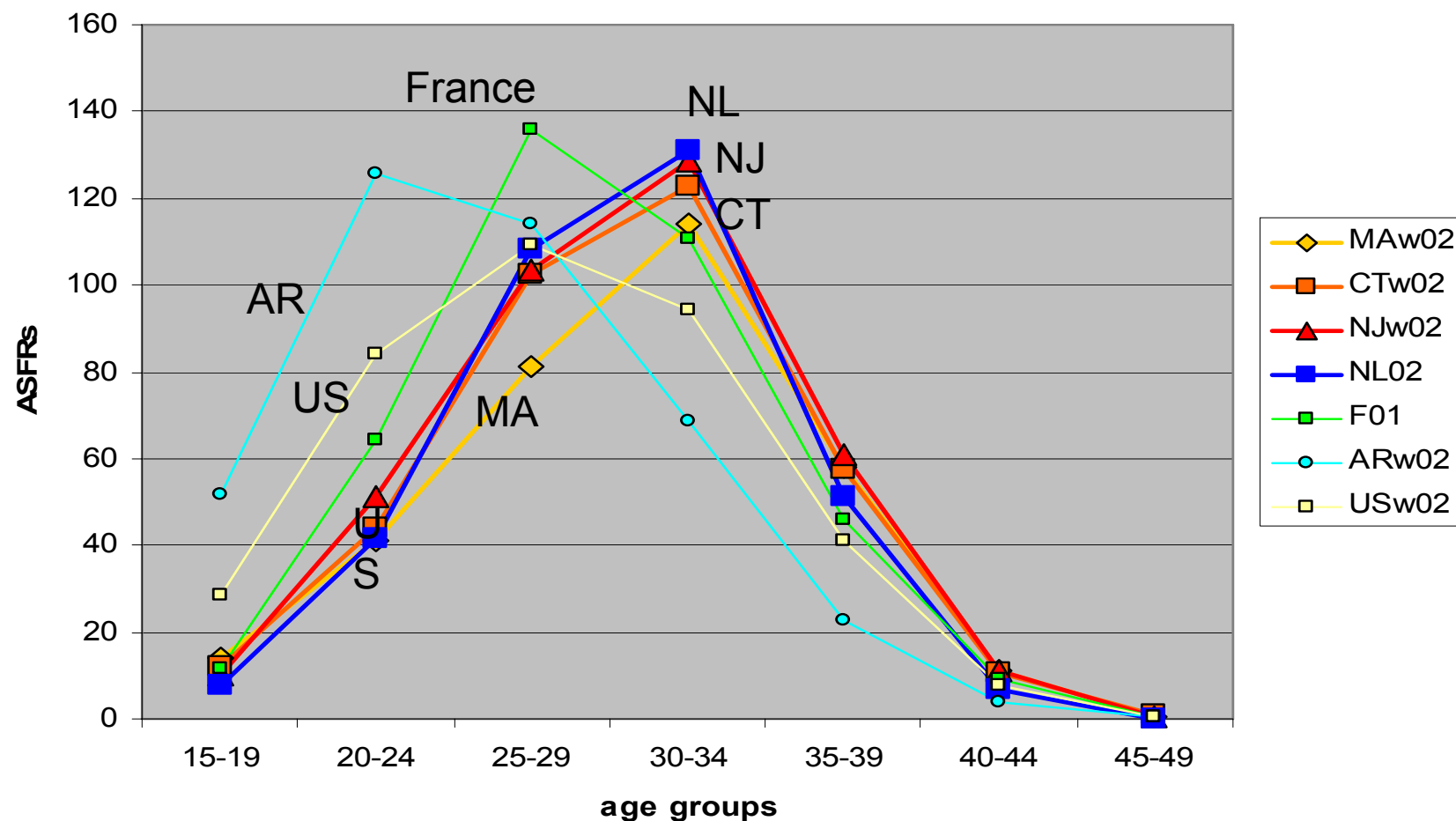
Figure 14. Distribution of nonmarital births by age: United States, 1970 and 1999

Source : NVSS – NCHS – CDC : Nonmarital Childbearing in the United States, 1940-99. National Vital Statistics Reports, Oct. 2000, Vol. 48, nr 16 : 8.

Fertility postponement in the US among Non-hispanic whites (NHW)

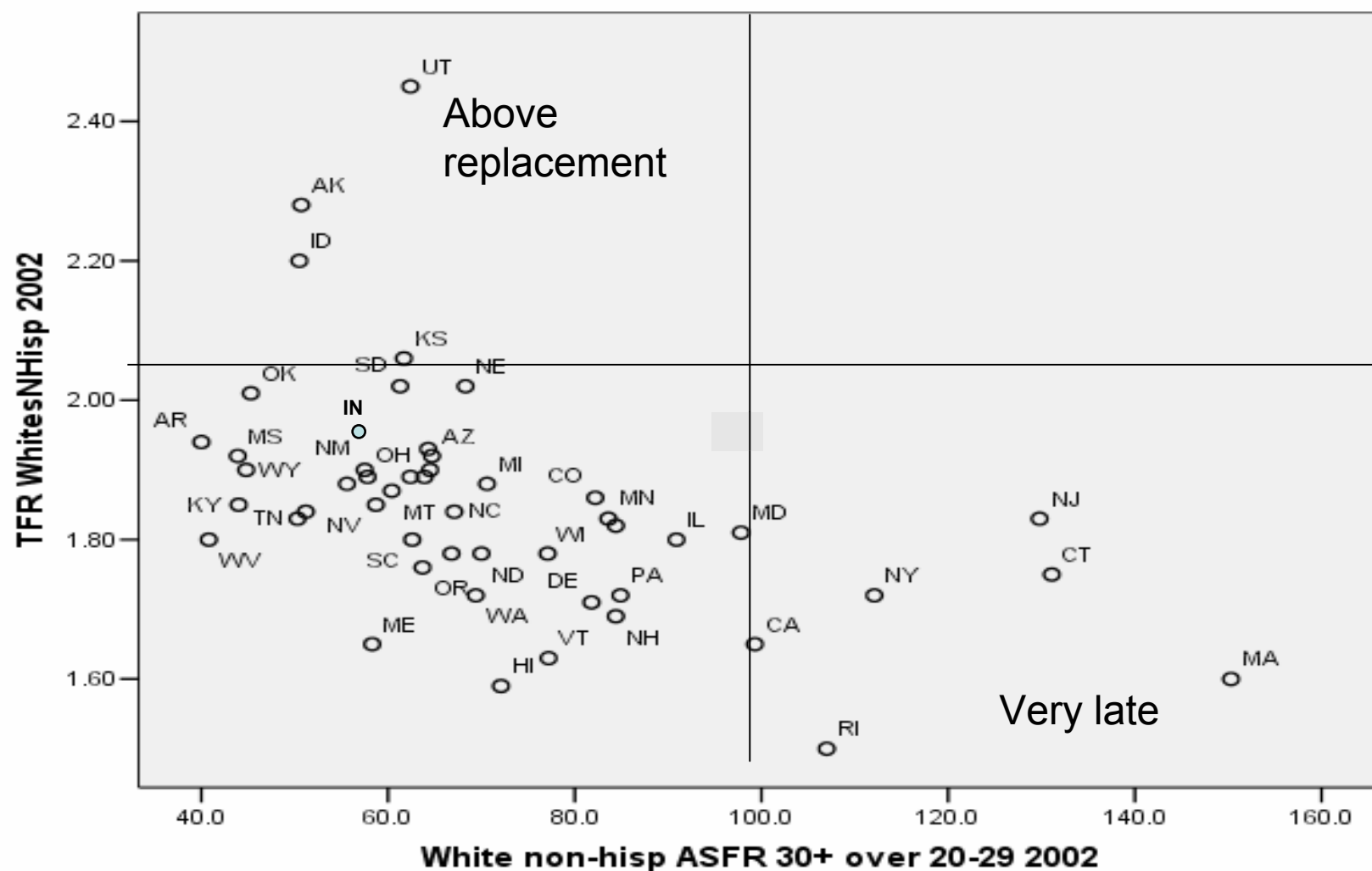
- US NHWs have similar fertility trends as the Northern and Western Europeans : age patterns of fertility are getting later and later and sub-replacement fertility is becoming more widespread.
- Several states now have NHW TFRs below 1.70 and fertility schedules as late as the Netherlands (Europe's latest)
- But several other states have maintained NHW TFRs above replacement level.
- Result is strong regional contrasts.

Very Late Fertility in US and Western EU 2002



In Europe the Dutch (NL) had the latest age schedule of fertility, with a typical peak in the age group 30-34. The non-hisp. white populations of New Jersey and Connecticut now have a schedule that is just as late, and non-hisp. whites of Massachusetts even have a later one. Arkansas has the youngest age pattern among non-hisp. whites of all 50 states, with white teenage fertility being higher than that of all women after age 35.

US Non hisp. White Fertility 2002: TFRs and Postponement Ratio



Two basic demographic dimensions (orthogonal principal components)

- **Dimension 1** = high abortion rates, postponement of non-hisp. whites marriage, higher frequencies cohabitation and same sex cohabitants, postponement in fertility schedule among non-hisp. white population, sustained sub-replacement fertility, low teenage fertility (white and non-white) = typical “Second demographic transition” features.
- **Dimension 2** = high teenage fertility (black + white), high non-marital fertility, high divorce (already since the 60s), grandparental households responsible for grandchildren = older pattern typical for US (and partially for the UK, not rest western Europe)

US 50 States : dimension 1 – Second Demographic Transition
Factor loadings (left) & best correlates (right)
PCA with Varimax rotation

- | | |
|--|--|
| • % No child NHW w. 25-9, 2000 +.93 | • % vote Bush 2004 -.88 |
| • % Never marr. NHW w 25-9 +.91 | • Disp. Personal income 01 +.70 |
| • % No child NHW ever mar 25-9 +.90 | • % pop. Metropolitan 2000 +.68 |
| • Abort. Per 1000 LiveBirths 92 +.89 | • % pop. Metropolitan 1970 +.65 |
| • % Never marr. NHW w 30-4 +.88 | • % Catholic 1990 +.62 |
| • Abort. Rate p. 1000 w. 15-44 96 +.84 | • % Evangelical* 2000 -.62 |
| • NHW fertility postponmt index 02 +.79 | • % pop 25+ with BA 1990 +.62 |
| • %0 Same sex househlds, 2000 +.75 | • % workers unionized 2001 +.50 |
| • NHW total fert. rate, 2002 -.73 | • Disp. Personal income 80 +.49 |
| • NHW fertility rate 15-19, 2002 -.68 | • %vote Nixon 72 (vs McGovern) -.46 |
| • % hhlds “families” 1990 -.64 | • %vote Goldwater 64 (Johnson) -.43 |
| • % hhlds cohabitants 2000 +.52 | |
| • Divorce rate per 1000 pop 2000 -.46 | |
- * *With estimated nr of Mormons in Utah*

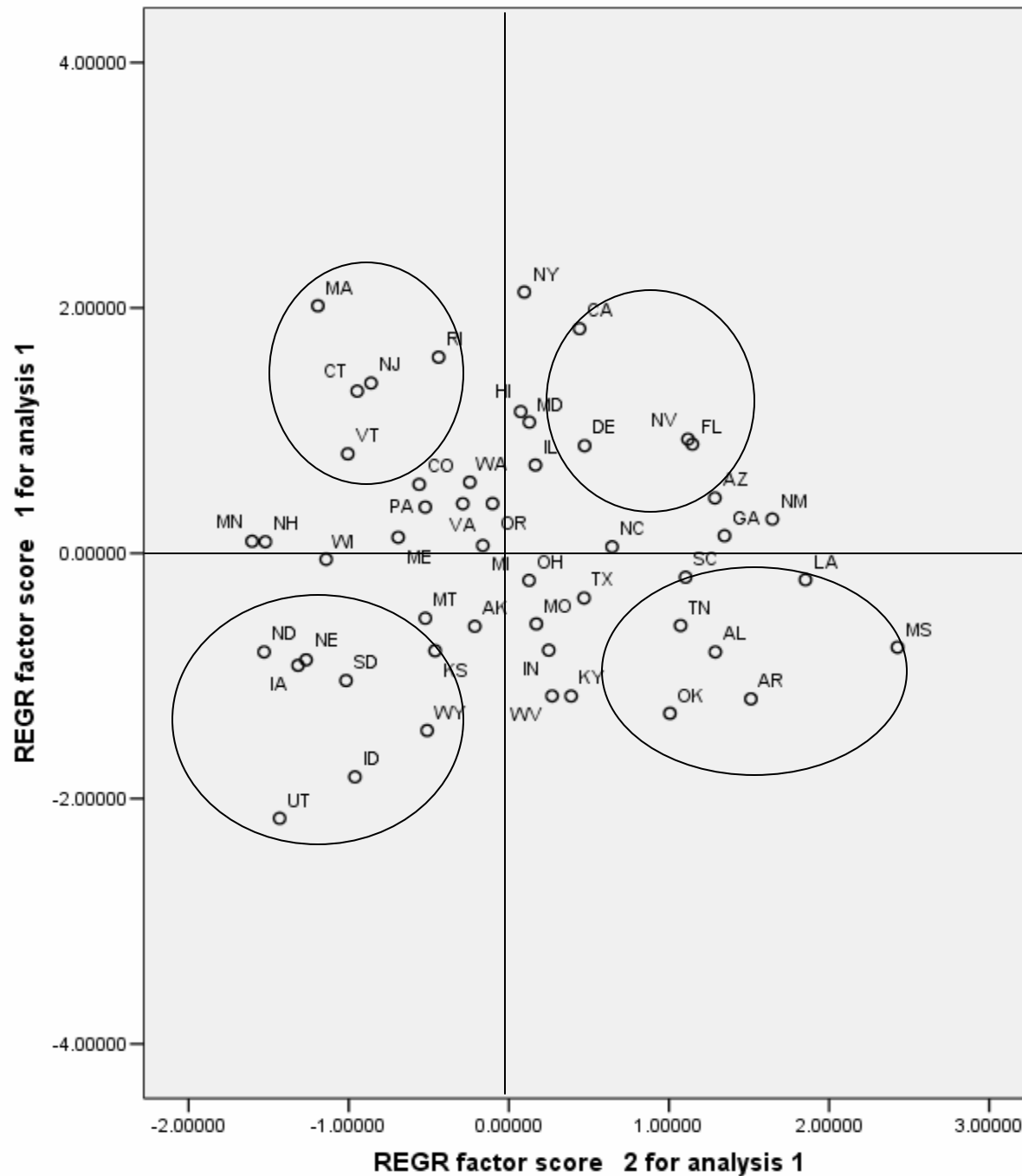
* *NHW = Non-hispanic whites*

US 50 States : dimension 2 – Vulnerability young women & children
 Factor loadings (left) and best correlates (right)
 PCA with Varimax rotation

• % grandparents responsible for grandchildren in hhld, 2000	+.89	% pop 25+ High school grads 90	-.69
• % births to teenagers 1986	+.88	% pop in poverty 98-00	+.66
• % births unmarr. W. 2000	+.85	% pop black 2000	+.66
• % births unmarr. W. 1990	+.80	% pop NHWhite 2000	-.61
• NHW fertility 15-19 2002	+.63	% Evangelical / Mormon	+.57
• Divorce 1000 pop 1990	+.55	% vote Goldwater 64 (vs Johnson)	+.54
• Divorce 1000 pop 1962	+.46	% vote Nixon 72 (vs McGovern)	+.54
• NHW fert postpnmt index 02	-.41	% pop. 25+ with BA	-.45
		Disp. Personal income 2001	-.43

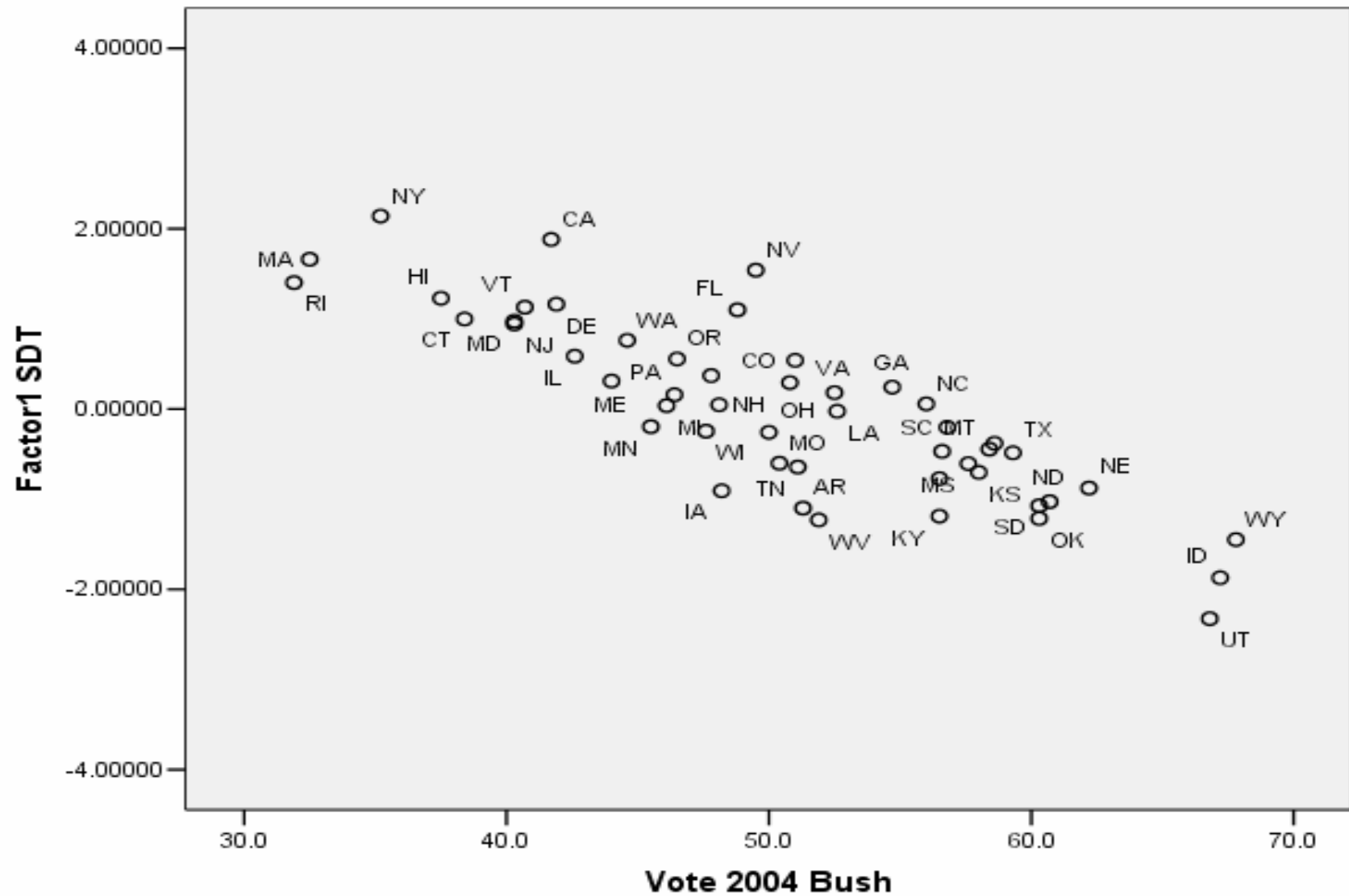
SDT -dimension:

NHWites marriage
+ fertility
postponement,
subreplacement
fertility, low
teenage fertility,
abortion,
cohabitation, same
sex hhlds.



Older dimension :
high teenage and
non marital
fertility (also for
NHWs),
grandparents
resp. for
grandchildren,
higher divorce.

Relationship between the “Second demographic Transition” Dimension in the US 50 states and the % Vote for Bush 2004 ($r = -.88$)



Partial Correlations : are the zero order correlations between the 2002 TFR (NHWhites) or the SDT dimension and the vote for Bush in the 50 US States resistant to controls ?

<u>ZERO ORDER r % VOTE BUSH 2004 with</u>	<u>Nhw TFR 2002</u>	<u>SDT-factor</u>
	.771	-.880

After controls for:

A. Three structural vars : disp. personal income 2001,

Pct pop with BA 1990, Pct pop. Metropolitan .755 -.787

B. Same structural + 2 Ethnic:

Pct Black & hispanic 2000 .755 -.840

C. Same structural + 2 Religion:

Pct Evangelic/ Morm. And Pct Catholic .686 -.734

D. ONLY 2 Religion vars:

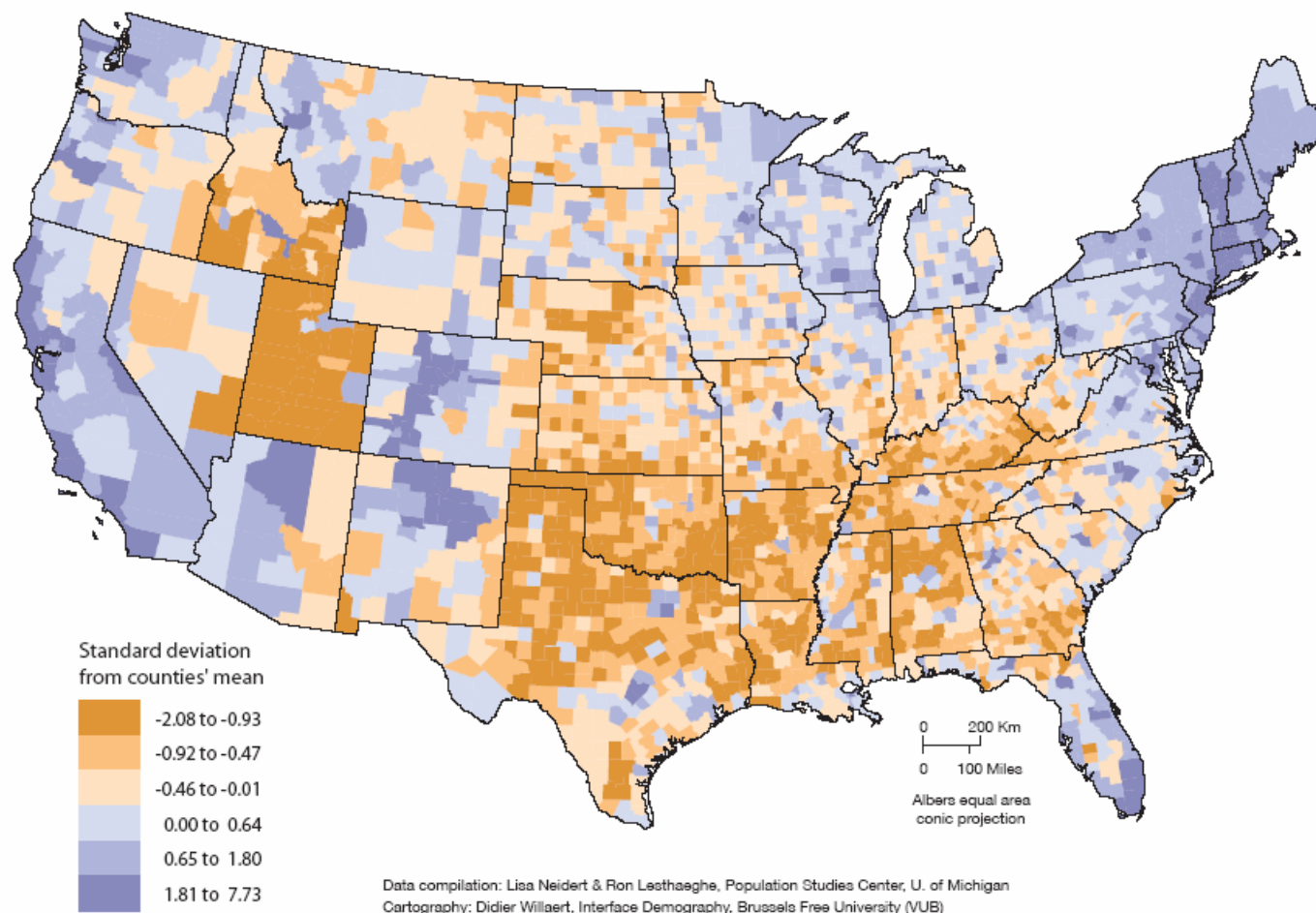
Pct Evangelical/Mm 2002 + Pct Catholic 1990 .654 -.788

Demographic indicators and their two orthogonal underlying dimensions: 3141counties

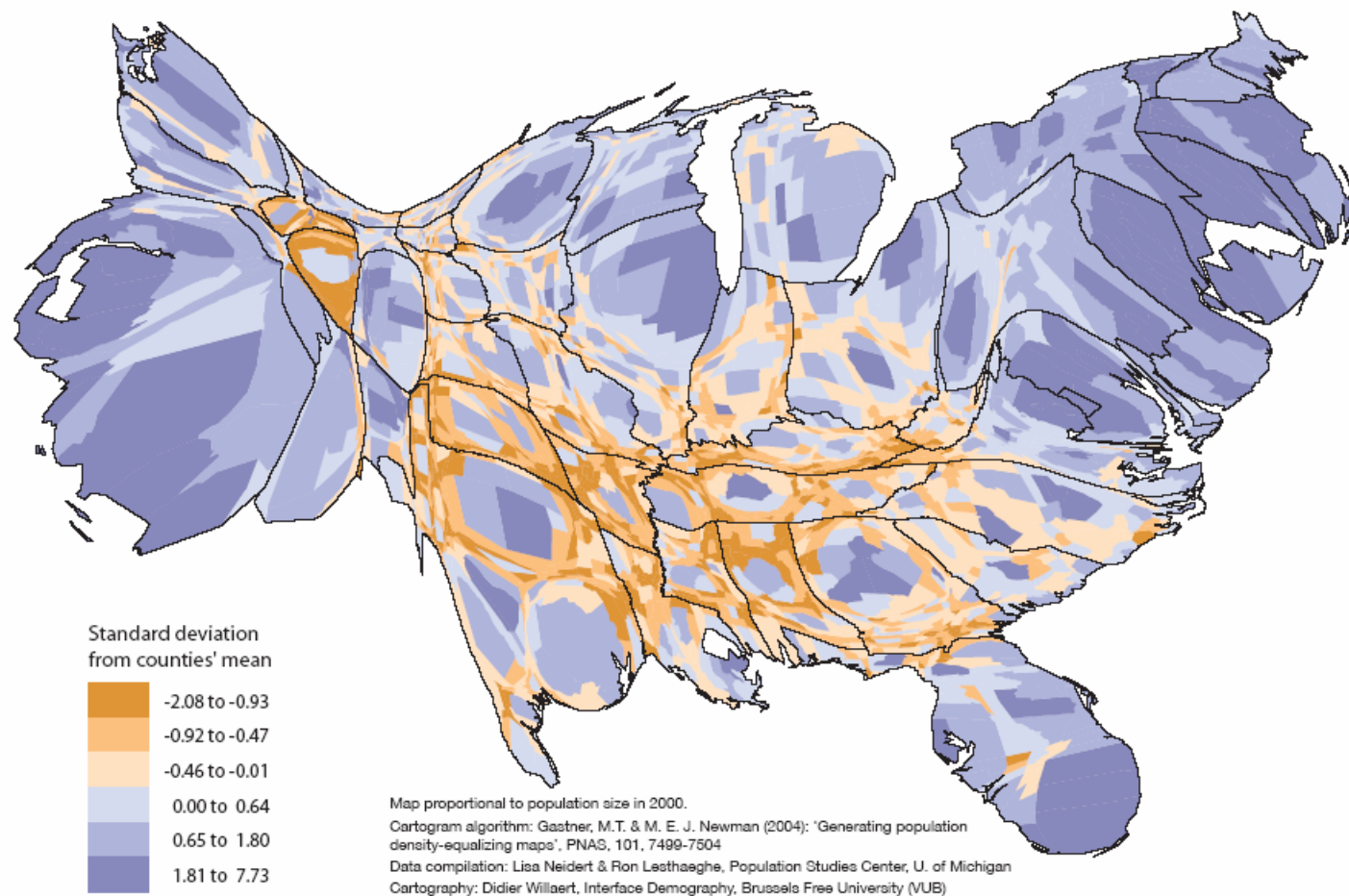
Characteristics are for white, non-hispanics unless noted, e.g. [total]

	factor 1 SDT	factor 2
% never married females, 25-29 [2000]	.837	-.016
% age at first birth, 28+ [1988]	.812	-.291
Age at first birth [1988]	.793	-.408
% childless women, 25-29 [2000]	.787	-.091
% never married females, 30-34 [2000]	.780	.076
Postponement ratio, 1988 - 30+/20-29 [1988]	.732	-.328
% cohabiting households [2000]	.651	.285
% cohabiting households, total [2000]	.603	.463
% teen births [1988]	-.558	.611
% same sex cohabiting households, total [2000]	.514	.365
Total Fertility rate [1999]	-.503	-.144
% same sex cohabiting households [2000]	.494	.264
% pop 30+ living with and responsible for grandchildren [2000]	-.450	.645
% pop 30+ living with grandchildren [2000]	-.319	.698
% children living in married couple family [2000]	-.272	-.609
% children living in married couple family, total [2000]	-.243	-.746
% pop 30+ living with and resp. for grandchildren, total [2000]	-.229	.640
% births to unmarried women [1988]	.164	.479
% currently divorced women, 35-44 [2000]	.127	.530
% pop 30+ living with grandchildren, total [2000]	-.103	.657
% female-headed families/households, total [2000]	.068	.706
% female-headed families/households [2000]	.031	.649

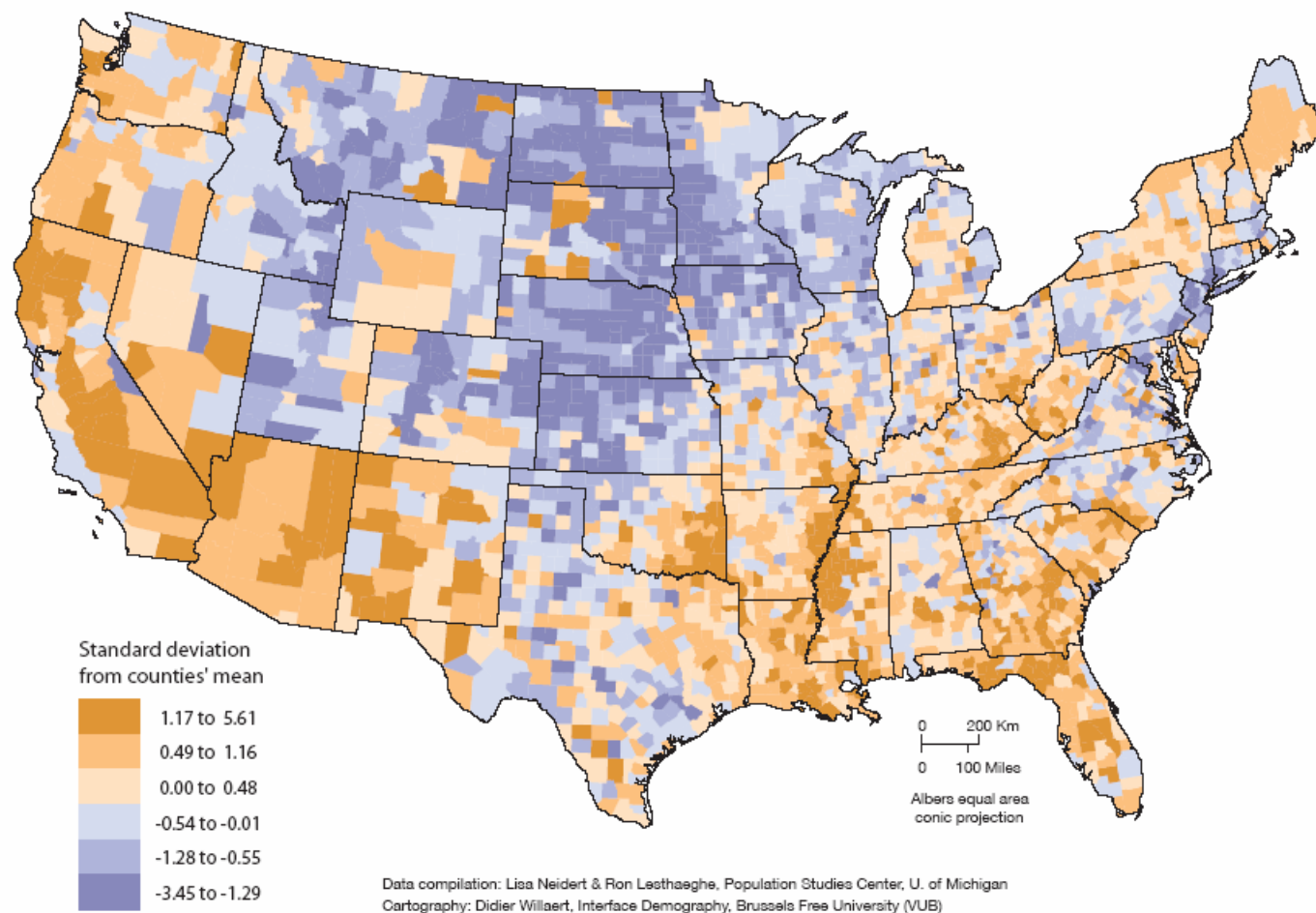
Map of the overall "Second Demographic Transition" factor (SDT) in the US by county



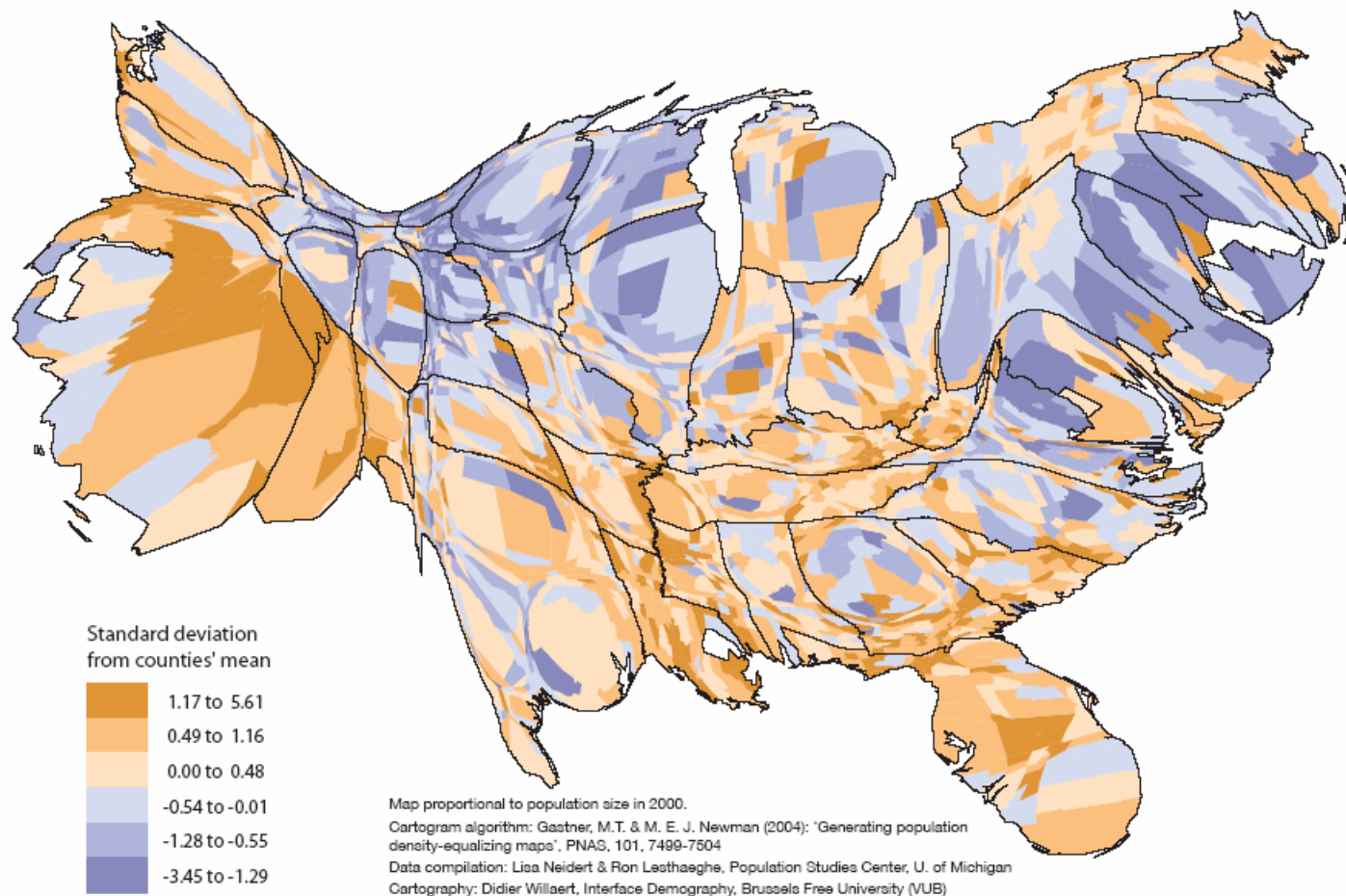
Population cartogram of the overall "Second Demographic Transition" factor (SDT) in the US



Map of the young mother and children vulnerability factor in the US by county



Population cartogram of the young mother and children vulnerability factor in the US



Decomposition of the SDT Factor : orthogonal design

	POSTPONEMENT	COHAB
Age at first birth, 1988	.951	.161
% first births 28+, 1988	.903	.247
% teen births, 1988	-.844	.090
Fertility Postponement index, 1988	.840	.200
% childless women, 25-29, 2000	.702	.429
% never married 25-29, 2000	.620	.543
% never married 30-34, 2000	.517	.575
Total fertility rate 1999	-.260	-.435
Cohabitation, 2000, WNH	.127	.789
Same sex cohab, 2000, total	.108	.715
Same sex cohab, 2000, WNH	.095	.684
Cohabitation, 2000 total	.078	.785

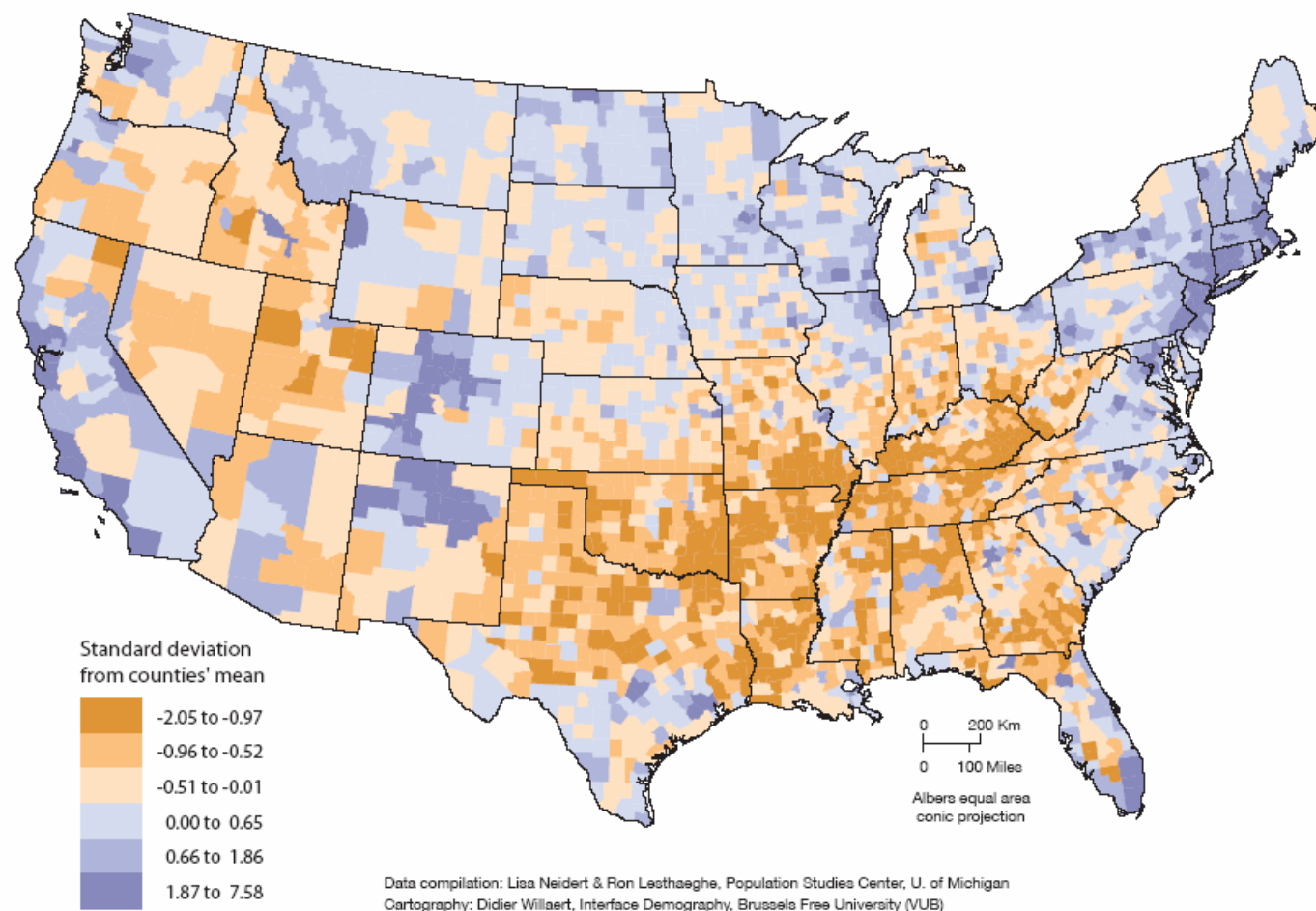
Postponement single Factor

Item	SDT1_Post1	SDT1_Post2
Age at first birth [1988]	.939	.930
% first births – 28+ [1988]	.929	.922
Postponement index [1988]	.857	.844
% childless women, 25-29 [2000]	.813	.822
% never married 25-29 [2000]	.784	.796
% teen births [1988]	-.748	-.723
% never married 30-34 [2000]	.705	.720
Total fertility rate [1999]		-.447

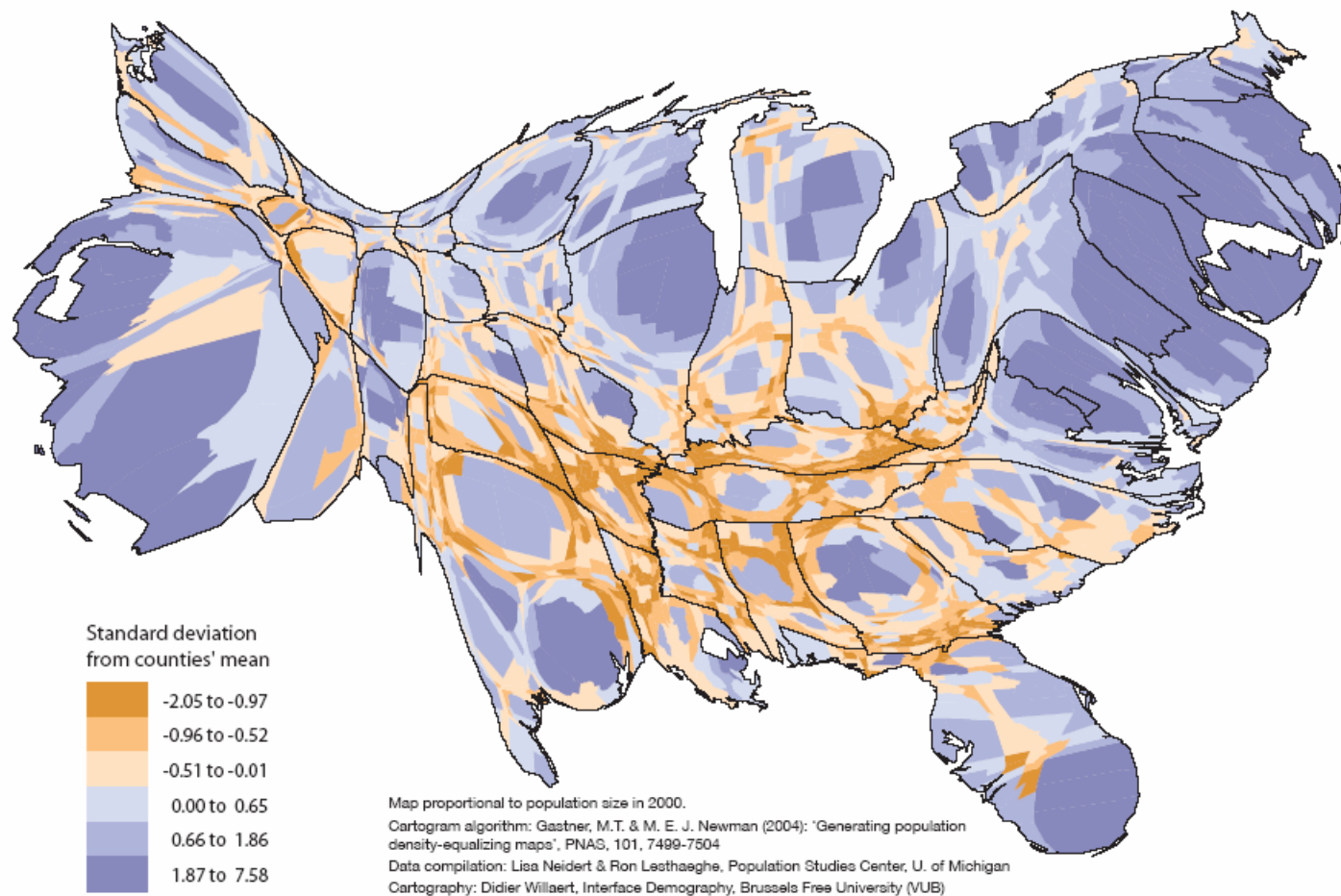
Cohabitation single Factor – correlation with Postponement single factor = .668

Item	SDT1_Coh1	SDT1_Coh2
Cohabitation [2000]	.785	.806
% never married 25-29 [2000]	.772	.756
% never married 30-34 [2000]	.762	.746
Cohabitation, total [2000]	.761	.784
Same sex cohabitation, total [2000]	.663	.680
Same sex cohabitation [2000]	.636	.657
Total fertility rate [1999]	-.522	

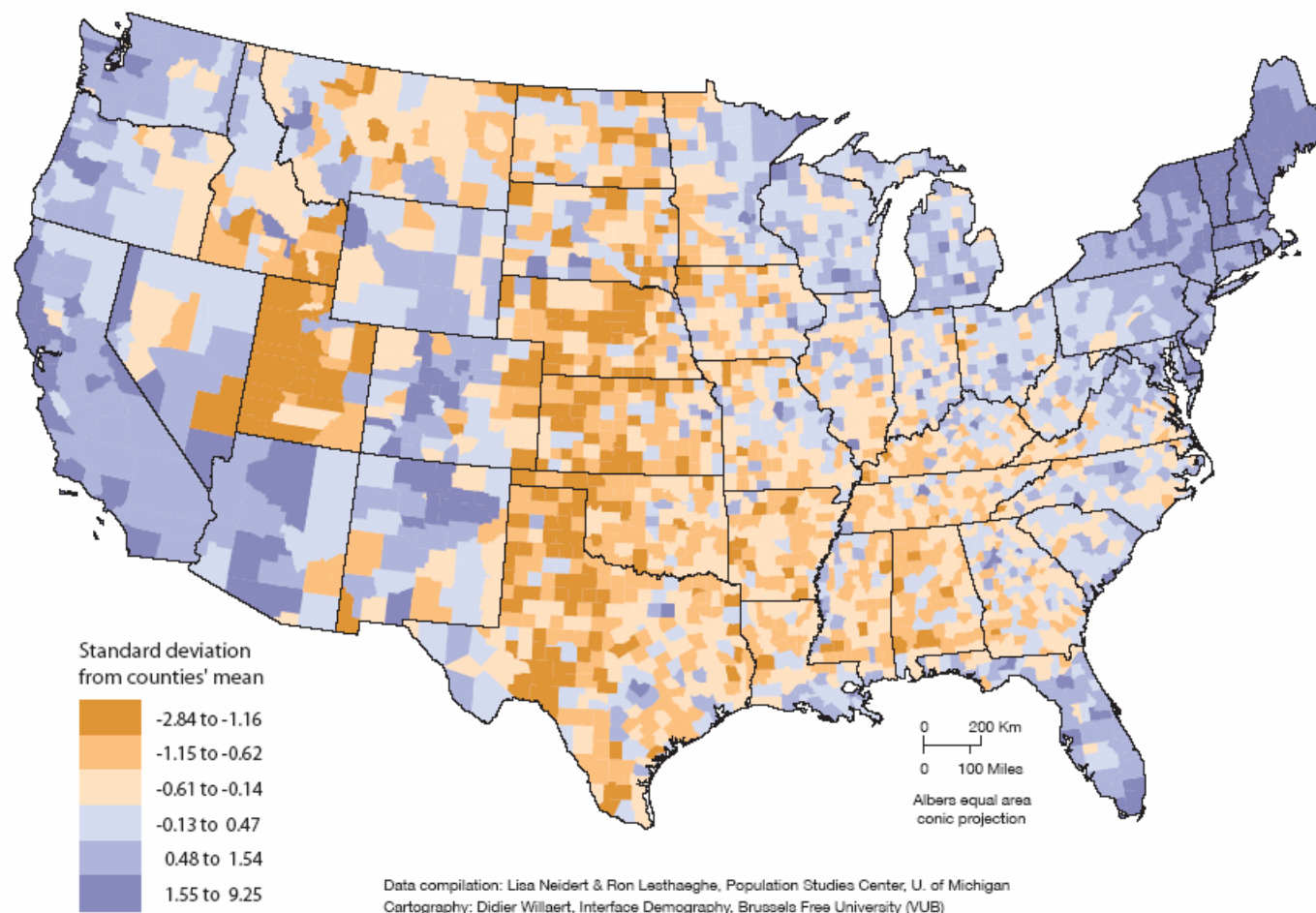
Map of the marriage and fertility postponement component of the US SDT-factor by county



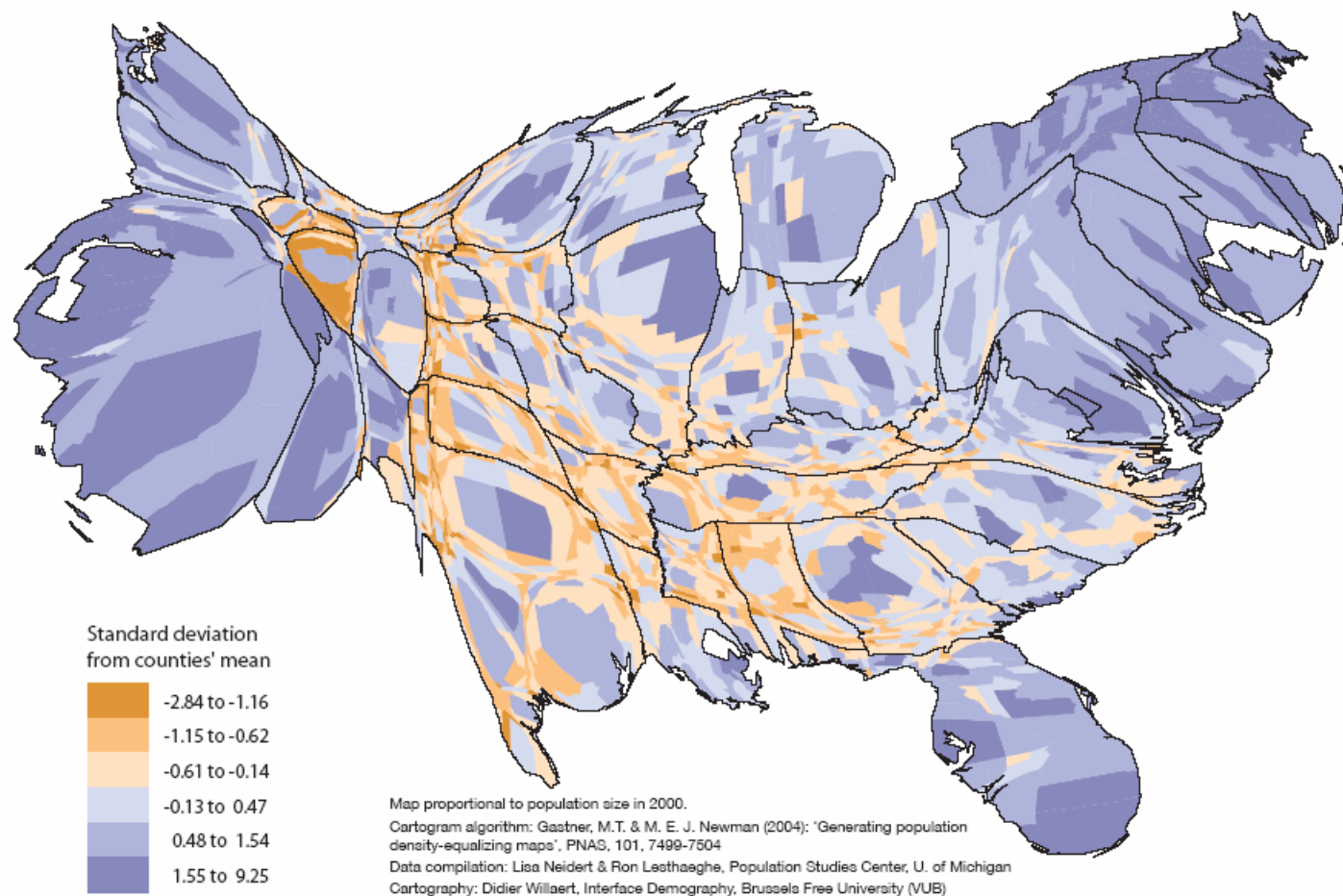
Population cartogram of the marriage and fertility postponement component of the US SDT-factor



Map of the cohabitation component of the US SDT-factor by county



Population cartogram of the cohabitation component of the US SDT-factor



Partial correlations SDT-BUSH for all counties and counties pop>25,000

	All counties	No small ones
Zero order corr SDT-Bush =	-.568	-.667
Partial corr., controls for :		
* 3 structural vars (log pop density, % hhlds with incomes >75000, women 25+ profess. degrees)	-.453	-.552
* 3 structural + 2 ethnicity (%black, %hispanic)	-.541	-.618
* 3 structural + 2 religion (% Evangelical&Mormon,% Catholic)	-.346	-.398
* 2 religion only	-.468	-.532

Correlation between the SDT factor and the Vote Bush 2004 – Zero order and partials, Counties – by other divisions

Geography	# cnties	Zero order	3 Struct	3Str + 2Ethn	3Str + 2Relig	2Ethn	2Relig
United States	3141	-.568	-.453	-.541	-.346		-.468
Region							
NorthEast	217	-.803	-.729	-.725	-.635	-.739	-.684
Midwest	1055	-.605	-.518	-.506	-.454	-.557	-.570
South	1424	-.415	-.365	-.380	-.243	-.364	-.288
West	445	-.773	-.639	-.646	-.513	-.760	-.681
Division							
New England	67	-.700	-.482	-.461	-.414	-.629	-.665
Mid Atlantic	150	-.790	-.552	-.494	-.442	-.601	-.680
EN Central	437	-.606	-.616	-.608	-.525	-.537	-.523
WN Central	618	-.572	-.462	-.442	-.395	-.542	-.549
South Atlantic	590	-.510	-.406	-.500	-.339	-.569	-.455
ES Central	364	-.252	-.287	-.347	-.247	-.168	-.185
WS Central	470	-.284	-.286	-.234	-.162	-.167	-.147
Mountains	280	-.750	-.592	-.598	-.469	-.740	-.661
Pacific	165	-.733	-.636	-.625	-.582	-.700	-.742

CONCLUSIONS

- The US is NOT an exception to the SDT : **all SDT characteristics present**.
- But SDT variables have **LARGE variances** in the US
- **TWO basic dimensions** of family formation and patterning need to be distinguished : one leading to young women and children living in more **precarious situations**, and the other one being a **CLASSIC SDT** dimension
- US reality = essentially a 4 quadrant typology produced by these 2 dimensions
- SDT dimension clearly correlated with religious and political dimension in addition to being related to structural ones.
- Correlation of the SDT dimension with 2004 Bush vote is **robust**, even at the level of 3141 counties
- And particularly the cohabitation part of the SDT, more than the postponement part, is positively related to the Bush vote.
- This equally holds for the major subdivisions, but clearly weaker SDT-Voting connection in the South.
- **US SDT patterning CO-responsible for the current political divide and election results.**

A Reaction to the US SDT

“So what should religiously-guided family people do ? Lessons drawn from the past suggest they should:

- Defend their respective orthodoxies, without any compromise with secular modernity;
- build “parallel cultural structures” such as schools, unions, clubs, small businesses, and media outlets, to minimize contact with the new “Westernizing” order;
- Develop attitudes of righteous, even aggressive defiance before the architects of the new order, much like the Dutch Catholics of the 1920s;
- And build practical alliances with other systems of “family morality” that still survive.”

Allan Carlson PhD. President Howard Center, Distinguished Fellow
Family Research Council (Washington DC) – recommendations to
the World Congress of Families, August 7, 1999