



# *Maryland Population Research Center*

**WORKING PAPER**

**Daily Life among American Immigrants**



Authors :

**John P. Robinson**  
**Chang Won Lee**  
**William Rivers**  
University of Maryland

**Jonathan Gershuny**  
University of Oxford



DAILY LIFE AMONG AMERICAN IMMIGRANTS

John P. Robinson  
Chang Won Lee  
William Rivers  
University of Maryland

Jonathan Gershuny  
University of Oxford

ABSTRACT

The study of American immigrant populations and the problems they face in adapting to life in their new country has been studied by social scientists from many disciplines and from many perspectives. What has not been studied in much detail is how the structure and details of their daily lives, in particular how they differ from native-born Americans and other immigrant groups.

The present article examines a full range of daily activities among American immigrants, as reported in recent time-diary data from the Americans' Use of Time Project (ATUS). In general, the weekly activity hours of immigrants do not appear markedly different from US-born citizens. There are marked origin-country differences, for example, with immigrants from Russia, Mediterranean and Central American countries spend notably higher averages of time at paid work, while immigrants from Canada and Asian countries spent less than other immigrants – and native-born Americans. Nonetheless, while these individual-country differences are notable, they do not suggest any simple regional or cultural patterns. However, when subjected to Multiple Dimensional Scaling analysis (MDS), clear cultural and geographic patterns become evident.

## INTRODUCTION

The study of American immigrant populations and the problems they face in adapting to life in their new country have been studied by social scientists from many disciplines and from many perspectives. These include issues of work life, language acquisition, segregation, crime, poverty, and the like. The usual concern in these analyses is how well these groups are “making it” in terms of economic status and cultural adaptation or acculturation. In their comprehensive review of “Immigrant America”, for example, Portes and Rumbault (2006) devote separate chapters to statistics on immigrants’ spatial mobility, occupational adaptation, political participation, mental health and language acquisition.,

What has not been studied in much detail is how the structure and details of their daily lives, in particular how they differ from native-born Americans -- and how they differ from immigrant groups from other countries. Portes and Rumbault (2006 p.311) report that immigrants are likely to participate in weekly religious services as US-born residents, although slightly more likely to say they “never” attend; however, they do not make reference to immigrant work hours, TV viewing or socializing, even though data are available from the same data sources. The present article examines a far fuller range of daily activities, as reported in recent time-diary data from the Americans’ Use of Time Project (ATUS) to provide such insights into overall differences among immigrants, as well as differences between countries of differing origin. .

### ***ATUS DATA:***

The American Time Use Survey (ATUS) has been collecting time-diary data from large samples of the American public since 2003. Its central measure of interest is respondents’ reports in their retrospective diary accounts of all their daily activities across the 24 hours of the previous day. These diaries are open-ended accounts of these daily activities, their beginning and ending times, in sequential order across the day. In that way, the diary preserves the important “zero-sum” feature of time, that is, if aggregate time on one activity (like TV) increases, time on some other activity (like work or sleep) must decrease. In the same way, if time spent by one immigrant group is larger than average, it must be offset by less time on other activities. In that way, time differences could reflect differences in life priorities or values.

These open-end diary accounts, consisting of around 20 activities reported across the diary day, are then coded into one of 400+ categories of time use, which are then recoded into larger categories like paid work, child care, personal hygiene or TV viewing. Central interest in this article is on diary time details of paid work, family life and child care, sleep and meal times and travel during the day, as well as all the activities that occur during one’s free time (like TV

and socializing). Further information on procedures for and availability of data in the ATUS can be found at [bls.gov](http://bls.gov) and in Abraham et al. (2006).

These daily time expenditures can further be analyzed as a function of the rich set of potential predictors of time available, both from the ATUS interview itself and from the 8-wave panel of Current Population (CPS) surveys that preceded it (particularly focused on details of respondent employment and unemployment situations). The CPS and ATUS also collect details about respondent personal background (like gender, age and income), family situation (like household size and presence of children) and location (like region, type of household dwelling). Adjustments for several of the more important of these predictor variables are included in the following analyses.

The 400+ coded activities in the ATUS have been reduced below to the following 22 categories, as falling into the four larger categories of:

- 1) Paid work related: Work, Commuting and Class/study time
- 2) Family care: Housework, Child care and Shopping
- 3) Personal care: Sleep, Meals, Grooming
- 4) Free time: Religion, Organizations, Social events, Active sports and fitness, Socializing, Arts/crafts/hobbies, Relaxing and the mass media activities of TV, Audio, Reading and Internet/computer use

By 2010, ATUS had collected diaries from more than 10,000 immigrants, with the sample sizes from more than 25 such groups shown as the rows (in Table 2) below. Sample sizes for some countries of origin (e.g., Mexico, Cuba, Germany) were large enough to be self-representative, others had to merged with neighboring countries (e.g., Central America, Middle East, Africa) in this grouping. The cells (in Table 2 below) show the weekly hours that immigrants from each of these 28 country/region groups spent in these 23 combined ATUS daily activities.

## ***RESULTS***

*Overall differences:* An initial question that can be addressed in these data is how does the combined total of immigrants differ from that of native-born Americans, and that question is addressed in Table 1, with the weekly hours of US-born natives shown in the first row and those for immigrants in the second row. Because the immigrants differ from natives on several notable demographic factors, the third row shows these immigrant time figures adjusted for these differences by use of the Multiple Classification Analysis (MCA) program in SPSS. MCA is a multiple regression program developed by Andrews et al. (1974) to adjust averages across groups for differences in Table 1:

## TABLE 1: OVERALL IMMIGRANT DIFFERENCES

TABLE 3: OVERALL IMMIGRANT-US-BORN DIFFERENCES IN ACTIVITIES (In hours per week)  
MCA-adjusted figures for various demographic factors between immigrant and US-born groups

	WORK	COMM	HW	CHILD	SHOP	SLEEP	EAT	PERS	REL	ORG	EVENT	SOC	PHONEO	FIT	HOBBY	TV	READ	AUD	IT	RELAX	EDU	TRAV	
0) NATIVE US	23.5	1.8	12.5	3.7	5.2	59.8	7.8	6	7.4	1.6	7.3	5.2	2.7	2.1	0.2	18.6				1	2.3	2.5	5.9
1) IMMIGRANTS	<b>26.2</b>	<b>2.7</b>	<b>13.3</b>	<b>4.8</b>	<b>5.3</b>	<b>62.3</b>	<b>7.9</b>	<b>5.2</b>	<b>8</b>	<b>1</b>	<b>4.5</b>	<b>4.8</b>	<b>2</b>	<b>1.6</b>	<b>0.1</b>	<b>17.1</b>			<b>0.8</b>	<b>2</b>	<b>2</b>	<b>3.8</b>	
<u>1) IMMIGRANTS -MCA</u>	<u>24.8</u>	<u>2.6</u>	<u>13.2</u>	<u>3.4</u>	<u>5.5</u>	<u>61.8</u>	<u>8</u>	<u>5.3</u>	<u>7.4</u>	<u>1</u>	<u>4.7</u>	<u>4.8</u>	<u>2</u>	<u>1.8</u>	<u>0.1</u>	<u>17</u>			<u>1</u>	<u>2.1</u>	<u>2.1</u>	<u>4.9</u>	
DIFFERENCE (Imm-USborn)	1.3	0.8	0.7	-0.3	0.3	2	0.2	-0.7	0	-0.6	-2.6	-0.4	-0.7	-0.3	-0.1	-1.6			0	-0.3	-0.4	-1	

In other words, the MCA-adjusted figures in line 3 show the immigrant figures as if immigrants had the same gender, age, education, income, marital, parental and employment status as US-born Americans and as immigrants from other countries.

It can be seen, for example, that this MCA adjustment has the effect of reducing the work-hour gap of immigrants from a 2.7 hour increase (26.2-23.5 hours) to 1.3 hours (24.8-23.5). MCA does little to reduce the higher commute times of immigrants, however; it is still almost 50% higher after adjustment, 2.6 hours vs. 1.8 hours, probably reflecting the need for immigrants to rely on public transport or car pools to get to work.

In general, however, Table 1 otherwise shows that the weekly activity hours of immigrants are not that different from the US-born, with 0.7 hours more housework, 2 hours more sleep, and 2 hours more work, offset by 2.6 hours attending events (like movies or sports events), 1.6 hours less TV and 0.6 hours less organizational activity (but not religion). Thus, the higher amounts of time spent by one immigrant group tend to be offset by lower times for other immigrant groups.

*Country-of-origin differences:* There are more marked country differences in Table 2, in which the 24 activity categories are arrayed for each of the 26 country/region groups. There are still marked origin-country differences, however, with immigrants from India, Africa and certain Asian and Latin American countries spend notably higher averages of time at paid work, for example, while immigrants from Canada and European countries spent less than other immigrants – and native-born Americans.

These individual-country differences suggest some larger or more general regional or cultural patterns found among other prominent activities as well, such as housework (higher among immigrants from Western European countries, lower from Eastern European countries), sleep (higher among immigrants from certain Latin American countries, lower from Japan and Korea), television viewing (lower among Asian immigrants and IT use (higher among Asian and Eastern European immigrants and lower among those from Latin American countries).

TABLE 2: DIFFERENCES ACROSS ATUS IMMIGRANT GROUPS (In hours per week x 10)  
 Combined sample 2003-08

	Work	comt	Educ	hw	child	shop	sleep	eat	pers	relig	org	event	soc	phone	fam	phone	oth	fit	hobby	tv	audio	it	read	relax	free	tr
US born	236	19	32	127	45	56	598	78	55	9	10	10	53	3		6	21	3	186	4	10	27	23	19		
MEXICO	267	27	19	147	60	59	642	77	45	9	4	4	52	1		2	15	1	181	3	3	6	11	15		
CENTAM	292	37	18	130	35	48	641	69	45	17	6	5	44	3		2	16	0	185	4	3	4	23	17		
CUBA	272	26	16	138	34	53	598	72	53	6	2	9	50	2		4	17	3	222	7	5	16	10	17		
HAITI/DR	252	31	41	99	44	59	641	53	62	17	2	4	49	1		9	16	0	200	4	3	7	30	18		
CARIBEAN	243	29	25	110	63	53	621	59	75	21	6	5	40	3		5	10	1	178	9	5	17	41	16		
SOUTH AM	283	30	43	131	51	57	608	77	53	8	4	6	55	3		4	14	1	157	4	3	14	17	15		
<u>PUERICO</u>	197	20	10	142	42	61	616	66	64	20	10	7	49	2		3	11	0	242	3	5	11	19	17		
CANADA	207	14	49	135	50	74	597	88	57	4	6	9	44	2		8	26	1	171	4	10	43	13	14		
UN BRITAN	228	18	7	166	41	68	586	92	44	7	11	4	40	5		6	29	2	178	2	14	42	22	14		
WEST EU	255	18	34	147	40	50	597	100	40	12	5	6	50	2		6	26	1	168	5	8	49	7	19		
ITALY	214	20	2	177	30	53	599	87	49	4	6	10	56	3		7	23	3	216	6	5	23	22	19		
MEDITN	255	21	5	179	55	38	620	80	43	16	7	6	44	1		2	15	1	170	1	15	54	24	16		
GERMANY	212	18	22	166	45	61	608	82	59	7	8	4	49	2		6	21	8	178	4	10	34	13	14		
EAST EU	255	22	37	107	41	67	622	79	48	5	4	8	47	3		5	18	1	161	5	10	33	31	20		
RUSSIAN	267	26	51	105	63	61	613	83	44	4	9	10	50	1		8	23	1	137	4	22	39	15	20		
CHINA	276	29	73	118	69	55	602	102	51	2	9	9	28	2		3	19	0	98	3	24	34	15	19		
TAIWAN	241	26	47	110	52	68	618	101	46	13	4	11	39	3		10	19	0	118	10	23	24	11	21		
JAPAN	239	24	33	146	66	63	594	96	54	4	13	7	38	4		3	27	1	133	13	20	31	25	13		
COREA	244	24	118	97	46	64	589	85	60	28	12	8	43	1		4	21	1	125	2	34	20	14	22		
VIETNAM	275	22	123	124	60	37	613	84	38	6	1	0	43	0		1	15	15	150	6	9	13	14	11		
PHILIPINES	257	22	36	159	50	51	606	85	51	12	4	7	30	2		3	16	16	167	1	7	10	31	14		
INDIA	319	29	26	105	72	57	608	92	53	12	6	6	46	3		4	20	20	126	2	13	20	19	17		
IRAN	287	26	61	148	28	57	543	100	41	3	11	12	41	1		2	22	22	144	9	41	28	10	23		
AFRICA	300	30	18	105	66	64	607	65	45	20	11	7	51	3		6	18	1	130	3	14	24	25	19		
OTHERS	278	27	16	121	56	52	612	85	49	10	4	6	47	2		4	16	1	148	3	13	19	20	18		

Nonetheless, these are only among the most visible differences by region in Table 2, and it seems an almost impossible task to summarize the differences in its 664 entries in a few sentences, paragraphs or even pages. To simplify this extremely complex task, then, we turn to a computer-graphic technique called “Smallest Space Analysis”, one of the more notable social-science methodological innovations developed during the 1960s (Guttman and Lingoes 1964; Kruskal 1963). It also goes under the name of Multi-Dimensional Scaling (MDS), and it has become one of the standard analytic tools available in the SPSS analysis package.

Based on calculations and procedures from mathematical topology (or “rubber-sheet geometry” (in which the simple order of distances in a space was employed as the central metric, rather than the original distances themselves -- as in subway maps), MDS makes it possible for social analysts to discover (or uncover) the underlying spatial structure of relations between various groups of people, social communities (like countries or communities), social objects (like music or artifacts). As an example of its utility and procedures, MDS can take the matrix of distances between US cities (say between Boston and Detroit, or between Chicago and New York, typically shown on travel maps) and to generate and draw a two-dimensional mapping of the country locating these cities in their correct geographic locations.

Early applications of MDS to socio-geographic data included Robinson and Hefner’s (1968) mapping of US citizen perceptions of various foreign countries and Inglehart’s (1976) mappings of multinational differences in attitudes and values. Converse (1972) appears to be the first social scientist to successfully apply MDS to the mapping of time-use data from the pioneering 1965 time-diary data across 12 countries from Szalai (1972), and he succinctly described his resulting MDS Figure 1 as follows:

In Figure 1 we have plotted the ‘locations’ of all our 15 sites with respect to the two major dimensions that arise from such an analysis. We discover to our considerable interest that we have retrieved from these time use profiles a ‘picture’ that bears a substantial resemblance to a map of the western world.....the European sites are filled in along lines, that do only modest violence to a simple geographic representation. (p150)

However, Converse cautioned against this simple explanation on the basis of geographical proximity:

Clearly, the solution is not pure physical geography. The position for the Yugoslavia point is far to the ‘West’ of its physical location. The German pair of observations is interchanged with the France-Belgium pair of positions, and so on. However, if we may paraphrase George Bernard Shaw, the marvel is less that our Figure 1 reproduces

physical geography poorly, that that it should reproduce it at all. . . . . All that entered the computer were 455 proportions indicating how people at 15 anonymous sites distributed their 24-hour day across 37 disparate and unidentified activity categories. It is remarkable that statistical compression of these raw data yields anything a physical map.

More recently, Gershuny et al. (2010) have applied this MDS procedure to time-diary data from to 23 (again mainly European) countries (collected between 1998 and 2007), as contained in the Multinational Time Use Survey (MTUS) archive at the University of Oxford. These comparative MTUS data are arrayed in Appendix A. Again, plausible and insightful (but somewhat different from 1965) clusterings and dimensions emerged from MDS visualizations, even though there were only five of the 1965 countries in the Converse analysis for which updated diary data were available. Nonetheless, the MDS-generated dimensions from these 1998-2007 diary data were strongly based on geographical or cultural proximity, much as Converse concluded almost four decades earlier. Moreover, these updated mappings were compatible with conclusions from Gershuny's previous more conventional analyses of these recent diary data.

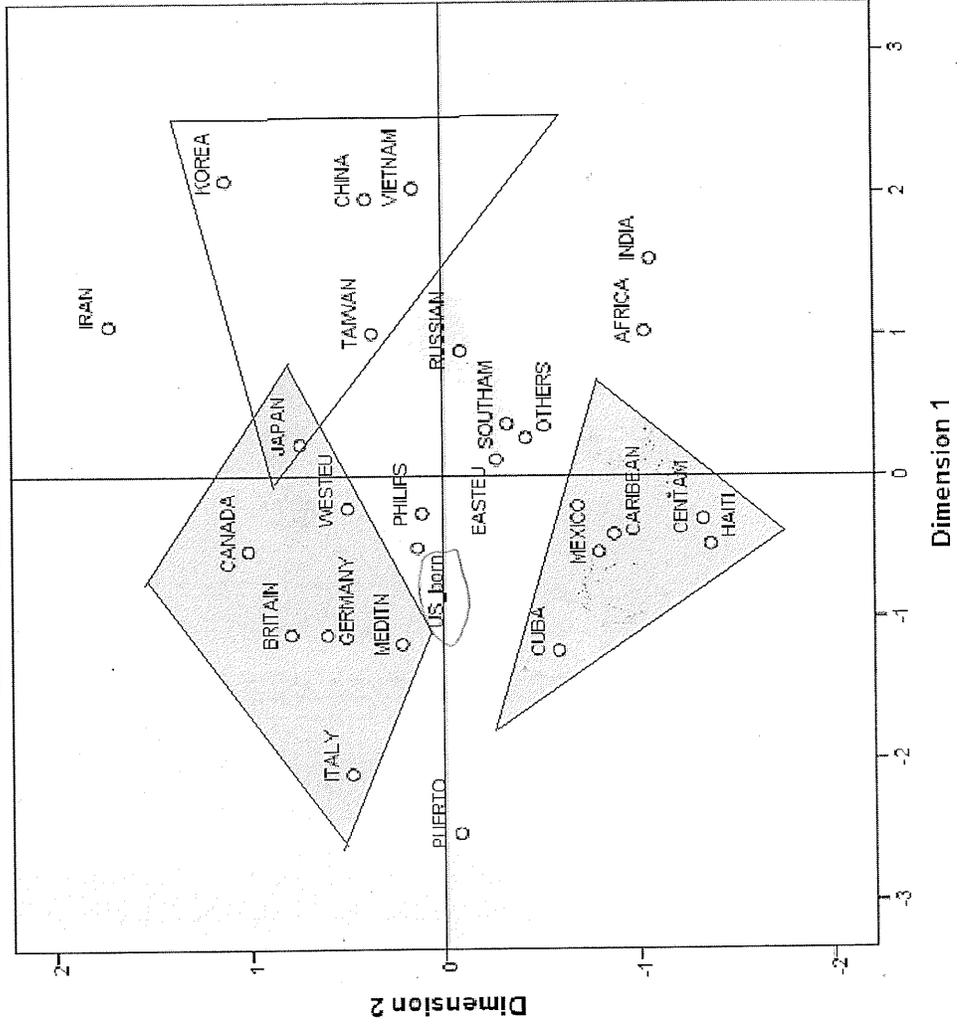
It is not completely surprising, then, that when MDS is applied to the ATUS immigrant data in Table 2, Figure 1 generates a mapping that is likewise strikingly reflective of similar geographic and cultural similarities. Figure 1 first starts by placing US-born citizens almost in the center of its two dimensional solution, with Latin American host countries generally to the "South" of the US, with host Asian countries generally to the "East" and with host European countries to the North (rather than to the West) in this map. African and Indian immigrants form their own small cluster to the south and east of the US, about equidistant from Asian and Latin countries. We have then deliberately highlighted these main clusterings in the Figure 1 graph to emphasize such interconnections.

Again, there are, of course, many notable exceptions to these general patterns. Russian and Eastern European immigrants appear closer to Asian than other European immigrants, and closer to South American immigrants (mainly from Brazil and Argentina), who are rather distant from other Latin countries in that clustering. The closest distance to the US-born is from former residents of the Philippines and from Japan. The same mismatches appear within our artificial clusters, such as the position of Spain and Italy being closer to US residents than immigrants from Canada or the UK.

# Immigrant daily life in ATUS

Derived Stimulus Configuration

Euclidean distance model



Nonetheless, as in the Converse and Gershuny et al. mappings, we are more struck by the similarities in Figure 1 than with these exceptions – particularly with the US emerging at the center of the diagram. While it is tempting to try to identify the “dimensions” underlying the clusterings in Figure 1, no simple interpretations seem possible. For example, the Asian countries to the right in Figure 1 do tend to report higher meal times and lower TV times, but there are many exceptions to even these distinctions – and no regular differences on the other 20 activities. Similarly, the higher work, commute, sleep and TV times, along with lower meal and event times, for immigrants from Latin countries are not universal, and show little systematic difference on other activities. Thus, the striking cultural/geographic obvious clusterings in Figure 1 at this point defy simple interpretation, although it is clear that MDS has again detected imperceptible linkages and patterns that somehow have larger interconnections and structure.

Attempts to tie the Figure 1 differences to differences evident in multinational origin countries in the MTUS diary data have also failed to help in interpreting the patterns in Figure 1. In these multinational “national character” comparisons, for example, people from Canada report far more organizational activity than residents of other countries, and German residents spend more time shopping – but neither of these differences can be found among Canadian or German immigrants in Table 2. This failure of this “national character” hypothesis to explain the distinctive patterns in Figure 1 makes the clear geographical/cultural mapping more remarkable.

*Hispanic differences:* As a separate example of how application of MDS to diary data reveals differences by immigrants, a separate MDS analysis turned to differences between US-born and immigrant respondents from the same cultural background to examine what differences could be found by individuals of the same culture who were born and grew up in the US. Perhaps, the best such comparison is found among Hispanics, since there are large numbers of them and a targeted identification question is asked in the CPA.

In Latin American countries, then, one can examine how US-born Mexican identifiers and other Hispanic identifiers differ both from immigrants from Mexico and other Latin countries and US-born non-Hispanics. The basic data to illustrate this arrayed in Table 3, which in its 5 rows show time uses of 1) US-born non-Hispanics, 2) US-born Hispanics who identify with Mexicans, 3) Mexican immigrants, 4) US-born Hispanics who identify themselves as with other Latin countries and 5) Hispanic immigrants from Latin countries other than Mexico. The expectation underlying this comparison is that US-born Hispanics will have time uses that are more similar to US-born non-Hispanics than to Hispanic immigrants.

In Table 3, then, that US-born Mexican identifiers differ from their non-Hispanic counterparts in their slightly longer (2 hour) work, (1 hour) education and (0.6 hour) socializing

times, offset by almost 2 hours less reading and 1.5 hours less housework times. On the other hand, in comparison to Mexican immigrants, US-born Mexicans spent more 4 more hours sleeping and 3 more hours doing housework, but up to an hour less time in education, grooming, attending events, reading, relaxing and traveling.

In contrast, US-born Hispanics of non-Mexican orientation differed from non-Hispanic US-born in their 2 hour greater child-care time and 1 hour greater education time, offset by their 3 hour less travel time and 1.5 hour reading time. Among non-Mexican immigrants, they differed from the US-born in their 3.3 hour greater work and commute time, 2 hour travel time , offset by their 2.6 hour child care time, and their up to an hour less time on education, personal care, attending events and fitness activity.

In both cases, then, the US-born Hispanics spent time closer to the non-Hispanic US-born than to immigrants of Hispanic background. That is reflected graphically in Figure 2

This MDS mapping showed both how the US-born Hispanics were closer to US-born non-Hispanics, and different from Hispanic immigrant groups.

## **SUMMARY AND CONCLUSIONS**

The present article has examined how US immigrant groups from 28 countries/areas differ in the full range of daily activities, as reported in recent time-diary data from the Americans' Use of Time Project (ATUS). In general, the weekly activity hours of immigrants do not appear markedly different from US-born citizens; nor are marked or predictable differences found by the years these immigrants arrived in the US. There are still marked origin-country differences, however, with immigrants from India, Africa and certain Asian and Central American countries spend notably higher averages of time at paid work, for example, while immigrants from Canada and European countries spent less than other immigrants – and native-born Americans. These individual-country differences suggest some larger or more general regional or cultural patterns that are noted for other prominent activities as well, such as housework (higher among immigrants from Western European countries, lower from Eastern European countries), sleep (higher among immigrants from certain Latin American countries, lower from Japan and Korea), television viewing (lower among Asian immigrants and IT use (higher among Asian and Eastern European immigrants and lower among those from Latin American countries).

When subjected to a Multiple Dimensional Scaling analysis (MDS), such cultural and geographic patterns become more clearly into evidence, visually reinforcing these

common activity differences of immigrant groups in this country (often not reflecting their differences in residents of their host country in the multinational context. In line with results from earlier multinational analyses of time-diary data, then, MDS has again proved most useful in visualizing and summarizing differences between countries over the last half century.

This was also the case when the MDS analysis focus turned to Latin American countries, and how US-born Mexican and other Hispanic respondents differed both from 1) immigrants from Mexico and other Latin countries and 2) US-born non-Hispanics. This MDS mapping showed both how the US-born Hispanics were closer to US-born non-Hispanics, and different from Hispanic immigrant groups.

*References:*

Converse, P. (1972) "Country differences in time use" In A. Szalai *The use of time*  
The Hague: Mouton

Gershuny, J., J. Robinson and A. Gershuny (2010) "Visualizing country differences in time use" Paper presented at the July 2009 IATUR meetings in Paris

Guttman, L. (1968) "A general non-metric technique for finding the smallest coordinate space for a configuration of points" *Psychometrika* 33:469-506

Inglehart, R. (1997) "The Inglehart values map" in *Modernization and Postmodernization*  
Princeton University Press

Kruskal J. (1964) Non-metric multidimensional scaling: A new method *Psychometrika*  
21; 118-129

Robinson, J. and R. Hefner (1968) "Perceptual maps of the world" Public Opinion Quarterly  
32:273-280

Szalai, A. (1965) *The use of time*. The Hague: Mouton

Thomas and Znaniecki social disorganization never meant a static condition but rather a social process subject to a great deal of variation in impact and extensiveness.