

# Background and Planning for Incorporating an Event History Calendar into the Re-engineered SIPP.

Jason M. Fields, Housing and Household Economic Statistics Division, US Census Bureau  
Mario Callegaro, Knowledge Networks

# The Unique Value of SIPP

- **To provide a nationally representative sample for evaluating:**
  - **annual and sub-annual dynamics of income**
  - **movements into and out of government transfer programs**
  - **family and social context of individuals and households**
  - **interactions between these items**

# Purpose of SIPP

- **Recommendation 2-1:** The two primary goals for SIPP should be to provide improved information on the distribution of income and other economic resources for people and families and on eligibility for and participation in government assistance programs. Within these two goals, most attention should be paid to improving the information for people who are economically at risk. A third important but subordinate goal is for SIPP to have a capability to respond to current policy needs for data in topical areas that are related to the core subjects of SIPP.
  - **The Future of the Survey of Income and Program Participation, NAS, 1993**

# Current Uses of SIPP

- Department of Agriculture
  - Model food stamp eligibility and measure food stamp participation
- Department of Health and Human Services
  - Measure the economic effect of disabling conditions on children and adults, and determine "triggers" that cause people to go on or to go off programs.
- Social Security Administration
  - Model SSI benefits, and the restructuring of Social Security such as age threshold changes.
- Congressional Budget Office and Congressional Research Service
  - Use micro-simulation to measure participation in major government programs

# Reengineering Goals

- Cost reduction
  - Use of annual data collection
  - Focused content selection
- Improved accuracy
  - Improve integration across SIPP concepts
  - Focus on improving recall and responses
- Improved timeliness and accessibility
  - Improved documentation
  - Improved processing system
- Improved relevance
  - Stakeholder input
  - Explore strengths from ACS and administrative records

# Stakeholders and Content Review

- Responding users indicated a broad need for most of SIPP core content. About 40 stakeholders completed matrix
- Select areas were added based on lost topical module content.
- Held five subject area meetings to discuss specific content (*Health, General income/Government programs, Assets and wealth, Labor force, Demographics and other items*)

# Timeline of SIPP/DEWS/Re-engineered SIPP

2005

- **December** –
  - Direct conversion of 2004 Panel instrument to BLAISE instrument and SAS processing system halted.

2006

- **January through May**
  - Beginning of interagency discussions on the future plans for SIPP.
  - CEPR “Save the SIPP Letter” – Existing data alternatives developed.
- **June through December** –
  - Brookings Workshop – presentation of alternatives concerns over data gap / administrative records / existing data options.
  - August open meeting - presentation of event history calendar instrument plans.
  - December open meeting - more details on content and structure of the program.

2007

- **January through May** –
  - CNSTAT Panel presentation
  - Announce plans to continue 2004 panel with reduced sample
  - Topical content meetings held with stakeholders
- **June to Present** –
  - Appropriations proposed to provide funding to continue SIPP in 2008.

# Existing Survey Hybrid Options

## Current Population Survey

- Overlap from year to year – about 40%.
- Administrative records
- Modelling subannual data
- Supplement with targeted topic reinterviews

## American Community Survey

- Large sample options
  - Option 1 sample from single year use this data as the initial interview and follow-up with annual mailout reinterviews
  - Option 2: sample from pooled 3 year samples (improved oversamples) and follow-up with initial interview and reinterview
- Administrative records
- Modelling subannual data
- Supplement with targeted topic reinterviews



# Event History Calendars

- “...the use of event history calendars has considerable potential in assisting respondents to reconstruct their personal pasts more completely and accurately, maximizing the quality of retrospective reports.”
  - Dr. Robert Belli  
University of Nebraska

# What is an event history calendar (EHC)?

- An EHC interview is centered around a customized calendar that shows the reference period under investigation
- The calendar contains timelines for different domains, for example, residence history, household composition, work history, and other domains relevant to the topic of study
- Landmark events, such as holidays and birthdays can be used to aid the respondent's memory

April 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

May 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

March 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

January 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

October 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

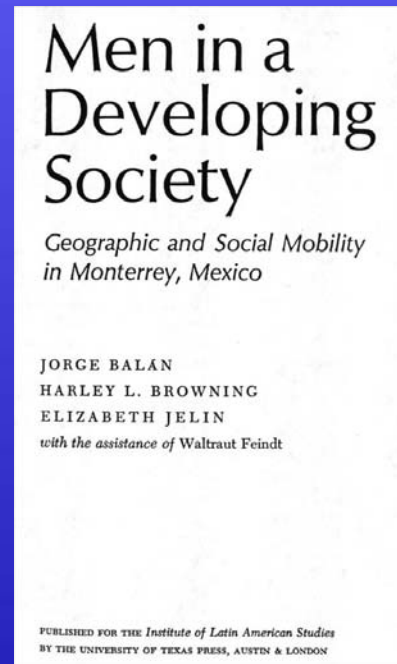
December 2007						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

# A few other surveys with Event History Calendars

- Panel Study of Income Dynamics – Univ. of Michigan
- National Survey of Family Growth – CDC/NCHS
- National Survey of Adolescent Health (AddHealth) - Univ. of North Carolina
- Los Angeles Family and Neighborhood Survey – UCLA
- English Longitudinal Study of Ageing – NatCen UK, University College London and the Institute for Fiscal Studies.
- Health and Retirement Study – Univ. Michigan (Nat. Inst. Ageing)
- 1998 National Retrospective Demographic Survey (EDER) – Mexico (INEGI)

# Origin: Balán et al. study (1969)

- Reaction to the problems of life history data collection:
  - Focus on few cases: representativeness
  - Lengthy life histories
  - Problematic data collection
  - Difficulty to process and analyze statistically the data
- Example: “The Polish Peasant” by Thomas and Znaniecki (1958)



Year	Age	Migration History					Educational History	Family History	Health	Name of the occupation	Description of duties	Work History					Year
		Name of place	State	Size								Position and dependent personnel	Enterprise			Income (in pesos)	
				Rural	Town	City							Type of Industry	No. of persons employed	Relatives		
1940	10	San Isidro	Coahuila	x			primaria 5th grade			farm worker	helps his father	family help	agriculture	3	yes	none	1940
41	11	"	"	"			primaria 6th grade			"	"	"	"	"	"	"	41
42	12	Monterrey (colonia Lomas)	Nuevo Leon			x	commerce 1st grade			NOT	EMPLOYED						42
43	13	"	"			"	commerce 2nd grade			"	"						43
44	14	"	"			"	commerce 3rd grade			"	"						44
45	15	Mexico City	Distrito Federal			"	not in school			messenger	office boy	employee 0	railroad office	350	no	300 monthly	45
46	16	"	"			"	"			"	"	"	"	"	"	"	46
47	17	"	"			"	"			"	"	"	"	"	"	"	47
48	18	Monterrey (colonia Regina)	Nuevo Leon			"	"			UNEMPLOYED	FOR EIGHT MONTHS						48
49	19	"	"			"	"	courtship		clerk	types letters	employee 0	mattress factory	50	no	150 weekly	49
1950	20	"	"			"	"	"		"	"	"	"	"	"	"	1950
51	21	(colonia Modelo)	"			"	"	marriage		"	"	"	"	"	"	180 weekly	51
52	22	"	"			"	"	first child born, male		purchasing agent	buys all materials	employee 2	"	70	"	250 weekly	52
53	23	"	"			"	"			"	"	"	"	"	"	"	53
54	24	"	"			"	"	second child born, female		owner of small factory	manager	employer 5	plastic toy factory	6	yes	800 monthly	54
55	25	"	"			"	"	third child born, male	died first month	"	"	"	"	"	"	"	55
56	26	"	"			"	"	fourth child born, male		"	"	"	"	"	"	"	56
57	27	"	"			"	"			"	"	"	"	"	"	"	57
58	28	"	"			"	"	fifth child born, female		"	"	employer 3	"	4	"	business losses about 1500 monthly	58

# Freedman et al. 1988

- Most cited paper across all disciplines
- Acknowledges Balán and Blum studies
- Month as unit of analysis
- Calendar can handle categorical, ordinal and interval variables
- Very detailed explanation on how to record responses
- Domains by row and years (month) by column



		1 5					1 6					2 1					2 2					2 3					2 4																
		1 9 7 6					1 9 7 7					1 9 8 3					1 9 8 4					1 9 8 5																					
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
CITY AND STATE OF RESIDENCE	B1	WHERE																																									
		WHEN																																									
		WHEN																																									
		WHERE																																									
MARRIAGE	B2	MARRIAGES	#																																								
	B3	MARITAL EVENTS																																									
		LIVING WITH SPOUSE																																									
	B4	PARTNER/LOVER	Y N																																								
		LIVING WITH PARTNER																																									
LIVED WITH WHOM	B5	CHILDREN	#																																								
		FIRST CHILD	M F																																								
		SECOND CHILD	M F																																								
		THIRD CHILD	M F																																								
		FOURTH CHILD	M F																																								
	B6	PARENTS TOGETHER	Y N																																								
	B7	MOTHER & FATHER																																									
	B7a	MOTHER																																									
	B7b	FATHER																																									
	B8	SPOUSE/PARTNER PARENT	Y N																																								
	B9	OTHER RELATIVES	Y N																																								
	B10	DORM/BARRACKS/CAMP	Y N																																								
	B11	HOUSEMATES	Y N																																								

	AGE	15																	
	YEAR	1976						1977											
	MONTH	Jl	Ag	Sp	Oc	No	De	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	No	De
B1	WHERE	Detroit			Ypsilant			Detroit											
	WHEN	X			X		X	X		X	X	X							X
	WHEN																		
	WHERE	Chicago ILL.			Ann Arbor MI.			Chicago ILL.											

			1983												1984											
B2	MARRIAGES	# 1	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	No	De	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	No	De
B3	MARITAL EVENTS					1																				
	LIVING WITH SPOUSE				X																					
B5	CHILDREN	# 1																								
	FIRST CHILD	M	X													X										
	SECOND CHILD	M	F																							
	THIRD CHILD	M	F																							
	FOURTH CHILD	M	F																							
B6	PARENTS TOGETHER	X	N																							
B7	MOTHER & FATHER			X														X								



# SIPP calendar aided interview test 1989 to 1991

Person number (or name)	1988			1989						1990							
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
Respondent person number																	
Address change?																	
Number of persons in household																	
Marital status																	
Employer 1:																	
Wages/Salary																	
Employer 2:																	
Wages/Salary																	
Self-employed (income)																	
Health insurance coverage:																	
Private																	
Medicaid																	
Medicare																	
Programs:																	
Workers' compensation																	
Unemployment payments																	
Child support																	
Food stamps																	
SSI																	
AFDC/ADC																	
General assistance																	
WIC																	
Pensions/Retirement:																	
Social Security Retirement																	
Private pension																	
State/Local govt. pension																	

1. R.O. Code  
2. Control number

Form SIPP-9030 U.S. DEPARTMENT OF COMMERCE  
10 13 90 BUREAU OF THE CENSUS

## EVENT CALENDAR

- INCOME SOURCE LIST**
- Social Security
  - U.S. Government Railroad Retirement pay
  - Federal Supplemental Security Income (SSI)
  - State Supplemental Security Income (State administered SSI only)
  - State unemployment compensation
  - Supplemental Unemployment Benefits
  - Other unemployment compensation (Trade Adjustment Act benefits, strike pay, other)
  - Veterans compensation or pensions
  - Black lung payments
  - Workers' compensation
  - State temporary sickness or disability benefits
  - Employer or union temporary sickness policy
  - Payments from a sickness, accident, or disability insurance policy purchased on your own
  - Aid to Families with Dependent Children (AFDC, ADC)
  - General assistance or General relief
  - Indian, Cuban, or Refugee Assistance
  - Foster child care payments
  - Other welfare
  - WIC (Women, Infants, and Children Nutrition Program)
  - Food stamps
  - Child support payments
  - Alimony payments
  - Pension from company or union
  - Federal Civil Service or other Federal civilian employee pensions
  - U.S. Military retirement pay
  - National Guard or Reserve Forces retirement
  - State government pensions
  - Local government pensions
  - Income from paid-up-life insurance policies or annuities
  - Estates and trusts
  - Other payments for retirement, disability, or survivor
  - G.I. Bill
  - Other VA educational assistance
  - Income assistance from a charitable group
  - Money from relatives or friends
  - Lump sum payments
  - Income from roomers or boarders
  - National Guard or Reserve pay
  - Incidental or casual earnings
  - Other cash income not included elsewhere

# PSID 2003 EHC instrument

**EHC Event History Calendar - [Employment (About) Phil]**

File Window Help

SPR 01 SPR 01 SUM 01 FAL 01 FAL 01 WIN 02 SPR 02 SPR 02 SUM 02 FAL 02 FAL 02 WIN 03  
 MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB

**Landmark Events**

**Residence**

**Employment Summary**

**Not Working**

321 Real Nice Place, Ann Arbor, MI [From 09/11/2002 to 02/21/2003]

Landmark Events Residence **Employment** Not Working TimeAway

**Employment Data Entry Window**

SPR 01 SPR 01 SUM 01 FAL 01 FAL 01 WIN 02 SPR 02 SPR 02 SUM 02 FAL 02 FAL 02 WIN 03  
 MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB

**Not Working Summary**

Joe and Sons

Bill's Landscaping

Job# 3

Job# 4

**Starting Time**

Year Season Month 3rd of Month  
 2002 WIN JAN Last

**Ending Time**

Year Season Month 3rd of Month  
 2002 FAL SEP Last

Employer: Bill's Landscaping

Note:

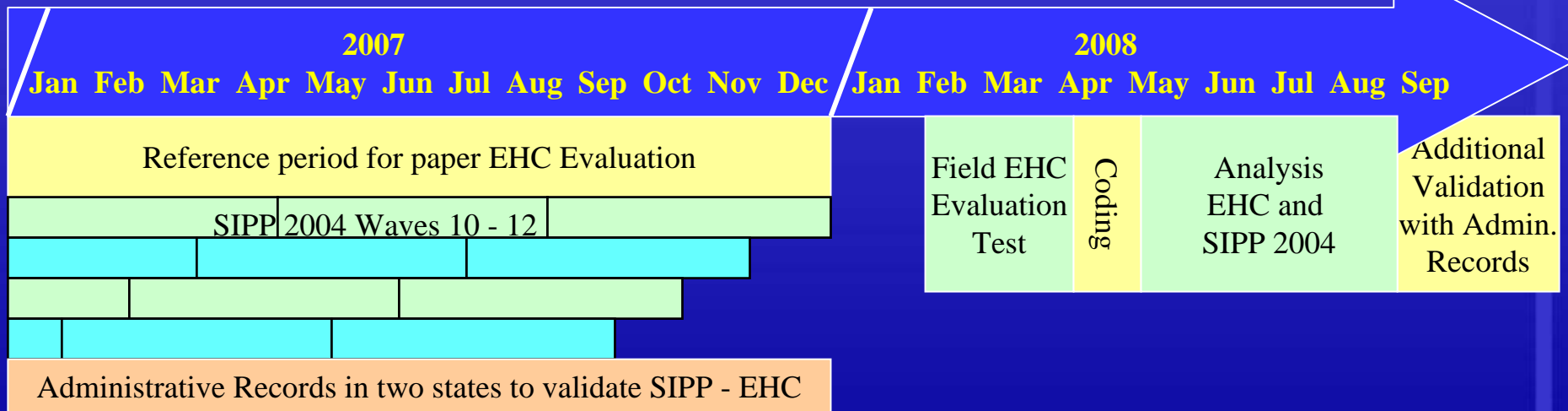
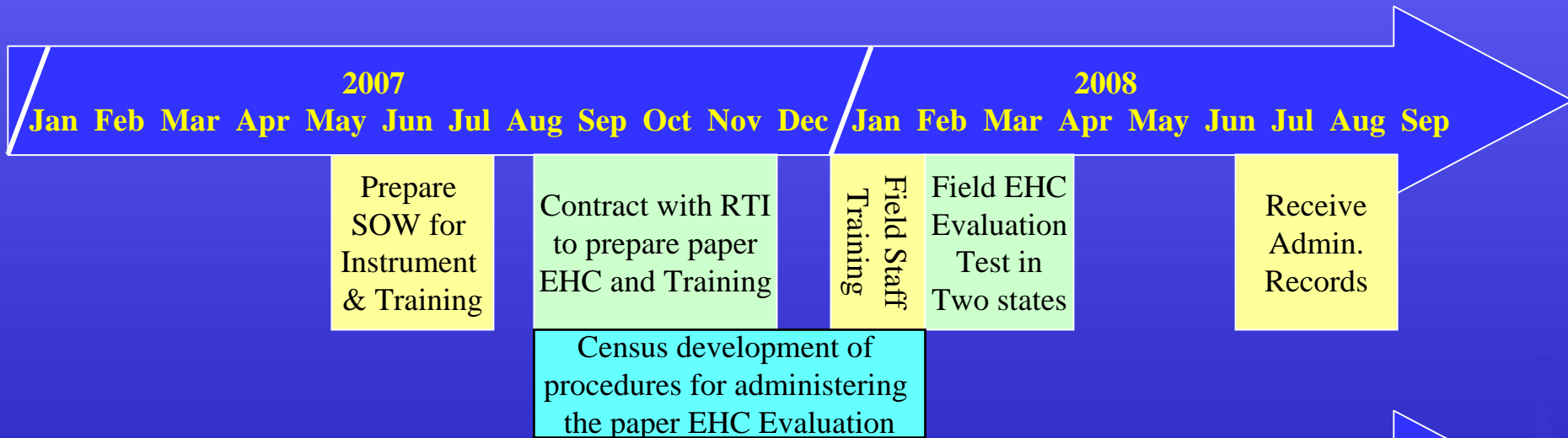
OK Cancel Delete

Q-list (1, 2) Q-list (3, 4, 5) Employment

# Analysis and Evaluation of EHC Instruments

- **Reliability** – High levels of agreement with previously collected questionnaire based data.
- **Domains**
  - Marriage, births, residential moves, school enrollment, labor force (all showed good agreement)
  - Concerns - AFDC/Food Stamps
- **Mode** - Phone and in-person almost same degree of consistency.
- **Validation** – Limited record check studies – designed into the first SIPP field test evaluation.
- **Reduction of seam bias**

# 2008 EHC Evaluation Test



# Page 1 – 2008 Field Test Instrument – DRAFT –

Control Number: \_\_\_\_\_ Date: \_\_\_\_\_  
 ENTER LINE # OF HH Member: \_\_\_\_ Field Rep Code: \_\_\_\_\_  
 CHECK ONE: Self response  Proxy  IF PROXY, ENTER LINE # OF PROXY \_\_\_\_\_

## 2007 EVENT HISTORY CALENDAR

OMB #, expiration date, form name *NOTICE – Your report to the U.S. Census Bureau is confidential by law (Title 13, U.S. Code). It may be seen only by individuals who are sworn for life to protect the confidentiality of these data and may be used only for statistical purposes.*

Landmark Events	Started before Jan 07	WINTER		SPRING			SUMMER			FALL			WINTER	Cont. into 2008
		Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov		
ENTER DESCRIPTION														
<b>A Residences</b>														
Current: RECORD ONLY WHETHER IT IS Public Housing (PH), Section 8 (S8), Other Program (OP)														
Former Address: RECORD ADDRESS AND Public Housing (PH), Section 8 (S8), Other Program (OP)														
Former Address: RECORD ADDRESS AND Public Housing (PH), Section 8 (S8), Other Program (OP)														
<b>B School Enrollment</b>														
<b>C Labor Force</b>		Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	
#1 Employer Occupation _____ CHECK ONE: _____ Pay Rate _____ <input type="checkbox"/> Employer <input type="checkbox"/> Self-Employed <input type="checkbox"/> Other Avg. hrs/week _____														
#2 Employer Occupation _____ CHECK ONE: _____ Pay Rate _____ <input type="checkbox"/> Employer <input type="checkbox"/> Self-Employed <input type="checkbox"/> Other Avg. hrs/week _____														
#3 Employer Occupation _____ CHECK ONE: _____ Pay Rate _____ <input type="checkbox"/> Employer <input type="checkbox"/> Self-Employed <input type="checkbox"/> Other Avg. hrs/week _____														
#4 Employer Occupation _____ CHECK ONE: _____ Pay Rate _____ <input type="checkbox"/> Employer <input type="checkbox"/> Self-Employed <input type="checkbox"/> Other Avg. hrs/week _____														
#5 Employer Occupation _____ CHECK ONE: _____ Pay Rate _____ <input type="checkbox"/> Employer <input type="checkbox"/> Self-Employed <input type="checkbox"/> Other Avg. hrs/week _____														
<b>D Unpaid Labor</b>														
<b>E Employment Summary</b>														
Was R looking for work? (Y-N)														
<b>F Workers Insurance Programs</b>														
Disability	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Unemployment	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Workers compensation	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	

DRAFT

# Page 2 – 2008 Field Test Instrument – DRAFT –

<b>G6. RECORD ANSWER(S):</b> <input type="checkbox"/> Employer/Union <input type="checkbox"/> Government <input type="checkbox"/> Other	<b>G9. RECORD ANSWER(S):</b> <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid, Medical Assistance, CHIP, other government assistance health plan <input type="checkbox"/> VA/Military <input type="checkbox"/> Something else	<b>G14. RECORD ANSWER(S):</b> <input type="checkbox"/> Employer/Union <input type="checkbox"/> Government <input type="checkbox"/> Other	<b>G17. RECORD ANSWER(S):</b> <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid, Medical Assistance, CHIP, other government assistance health plan <input type="checkbox"/> VA/Military <input type="checkbox"/> Something else
--	---	---	--

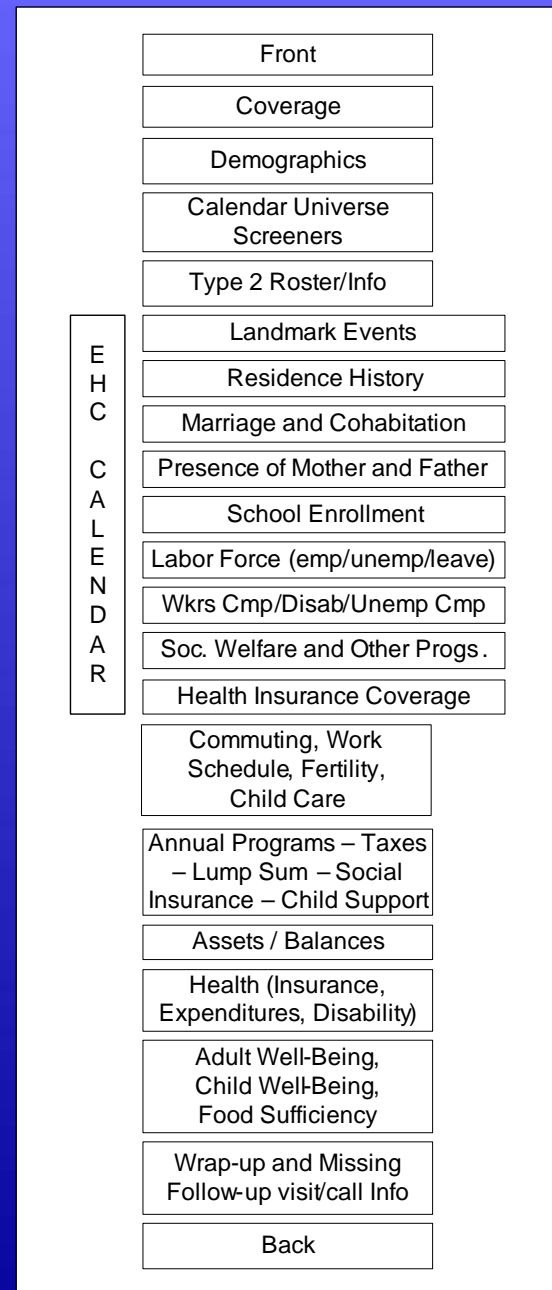
G	Health Insurance	Started before Jan 07	WINTER			SPRING			SUMMER			FALL		WINTER Dec	Cont. into 2008	Receive Now?	
			Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov				
	Employer-sponsored coverage?															Y	N
	Medicare?															Y	N
	Medicaid?															Y	N
	Military or VA Coverage?															Y	N
	Directly-purchased coverage?															Y	N
	Other health insurance? <i>Describe:</i>															Y	N
	Uninsured?															Y	N
H	Social Security																
	Social Security?		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		Y	N
	Medicare Part B deduction?		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		Y	N
I	Social Welfare																
	Temporary Assistance for Needy Families (TANF)?		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		Y	N
	Person number(s) of beneficiary _____																
	Food Stamps?		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		Y	N
	Person number(s) of beneficiary _____																
	(Ask only of females) WIC?															Y	N
	Person number(s) of beneficiary _____																
	Supplemental Security Income (SSI)?		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		Y	N
	Person number(s) of beneficiary _____																
	Social Security Disability Insurance (SSDI)?		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		Y	N
	Person number(s) of beneficiary _____																

DRAFT

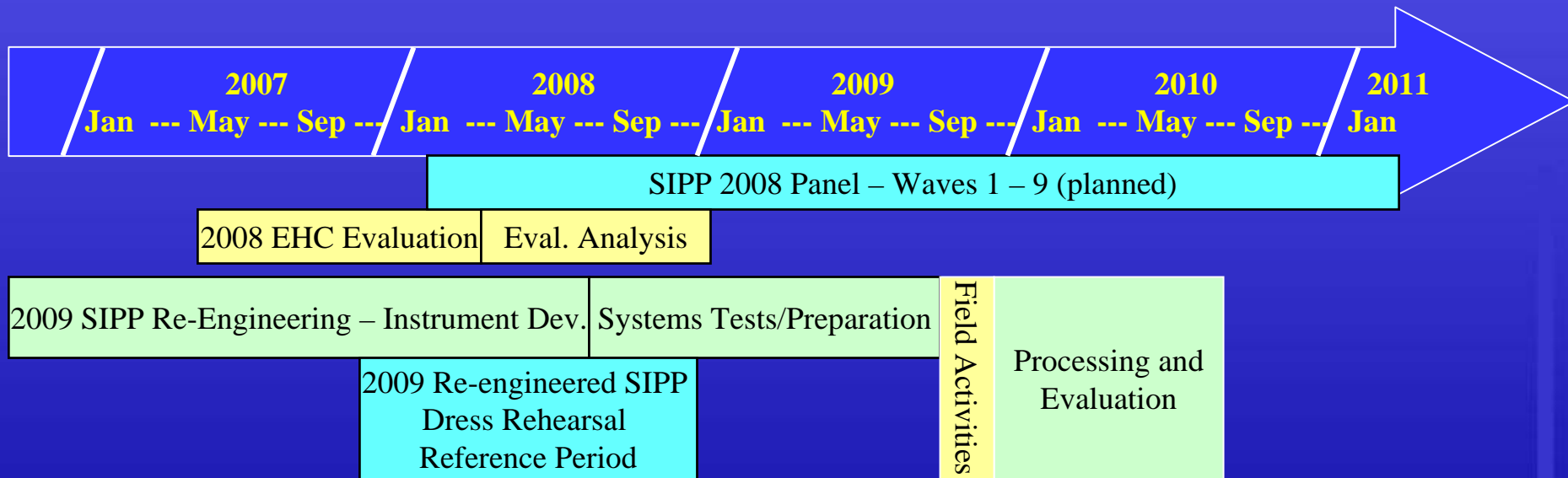


# Re-engineered SIPP Survey

- Survey Instrument –
  - Annual administration
  - Follow movers
  - Limited feedback
- Calendar –
  - Improvement on other designs by integrating more closely with Blaise, the instrument programming language.
- Simultaneous development of processing and instrument



# 2009 Re-engineered SIPP Dress Rehearsal





# Event History Calendar Conference

- **"The Use of Event History Calendar Methods in Panel Surveys" December 5-6, 2007 at the US Census Bureau**
- **Agenda**
  - **Examining the Impact of Event History Calendar Interviewing on Data Quality from Disadvantaged Respondents - Belli**
  - **EHC in PSID**
  - **EHC in NLSY97**
  - **EHC in Netherlands**
  - **EHC in LA Family and Neighborhood Survey**
  - **EHC in British Panel survey**
  - **Seam Bias in SIPP**

# Assessing Users' Needs

U.S. Census Bureau

## Survey of Income and Program Participation

# SIPP

[Introduction to SIPP](#)

[SIPP Survey Content](#)

[Technical Information](#)

[Using & Linking Files](#)

[SIPP Publications](#)

[Access SIPP Data](#)

[Access SIPP Synthetic Data](#)

[User Notes/  
ListServe/News](#)

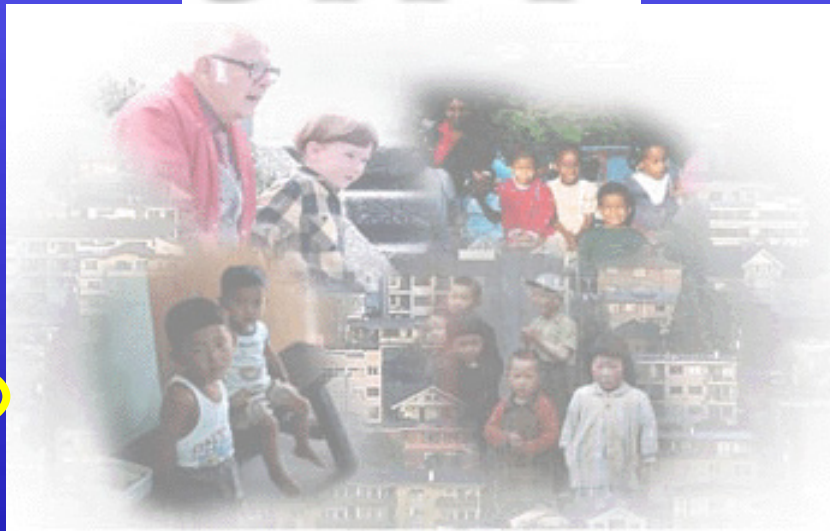
[SIPP  
Users' Guide](#)

[SIPP  
Tutorial](#)

[Technical  
Documentation](#)

[SIPP Help](#)

[re-engineered  
SIPP](#)



URL: <http://www.sipp.census.gov/sipp/dews>

*Source: U.S. Census Bureau, Demographics Survey Division,  
Survey of Income and Program Participation branch*

Census Bureau Links: [Home](#) · [Search](#) · [Subjects A-Z](#) · [FAQs](#) · [Data Tools](#) · [Catalog](#) ·  
[Census 2000](#) · [Quality](#) · [Privacy Policy](#) · [Contact Us](#)

USCENSUSBUREAU

Helping You Make Informed Decisions