

EVALUATING RESPONDENT BURDEN OF THE 2013 CPS ASEC CONTENT TEST WITH TIMER DATA

C. Adam Bee and Aaron Cantu
US Census Bureau

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Research Question

How does interview duration differ
between the CPS ASEC
and its redesigned questionnaire?

Descriptive statistics

	<u>Production</u>	<u>Content Test</u>
Less than age 15	23%	14%
Age 15-24	14%	9%
Age 25-61	49%	47%
Age 62+	14%	31%
Median Age	43	55
Worker	56%	57%
Non-worker	44%	43%

Source: Semega and Welniak, 2013

Simple means

Section	Mean times		Difference (minutes)	Percent Difference
	Production	Content Test		
All sections	26.8	32.2	5.4	20

Sample size 5,519 7,650

Note: Each column is rounded individually.

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All sections	26.8	32.2	5.4	20
CPS Basic	7.5	7.8	0.3	4

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Income	11.5	15.3	3.7	32
Health	2.7	4.2	1.5	58

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ASEC	19.3	24.4	5.1	27
Income	11.5	15.3	3.7	32
Health	2.7	4.2	1.5	58
Migration	0.3	0.3	-0.1	-22
SPM	4.7	4.7	-0.1	-1
Sample size	5,519	7,650		

Note: Each column is rounded individually.

Within demographic groups

<i>Group</i>	<u>Mean ASEC Section Times</u>		
	<u>Production</u>	<u>Content Test</u>	<u>Diff. (%)</u>
Age of householder			
25 to 61	19.5	24.7	27
62 and older	19.0	24.1	27

Within demographic groups

<i>Group</i>	Mean ASEC Section Times		
	Production	Content Test	Diff. (%)
Age of householder			
25 to 61	19.5	24.7	27
62 and older	19.0	24.1	27
Household size			
One person	14.0	17.0	22
Two people	19.6	24.7	26
Three or four people	22.6	28.1	24
Five or more people	25.9	32.2	24

Regression: ASEC section time

<i>Independent variable</i>	Coef.	Std. Err.	t
Content Test indicator	4.4	0.2	29.0
Age	0.1	>0.1	15.8
Female	-0.3	0.2	-2.1
Education (<HS omitted):			
High school	0.9	0.3	3.0
Some college	1.6	0.3	4.9
Assoc	1.5	0.4	4.3
College	1.9	0.3	6.5
Household size	3.1	0.1	56.3
Sample size	13,169		
R ²	0.252		
Unconditional mean difference	5.1		

Regression: Income section time

<i>Independent variable</i>	Coef.	Std. Err.	t
Content Test indicator	3.3	0.1	30.39
Age	0.1	>0.1	17.21
Female	-0.3	0.1	-2.82
Education (<HS omitted):			
High school	0.8	0.2	3.63
Some college	1.5	0.2	6.52
Assoc	1.4	0.3	5.80
College	1.9	0.2	8.90
Household size	1.7	>0.1	42.42
Sample size	13,169		
R ²	0.193		
Unconditional mean difference	3.7		

Regression: Health section time

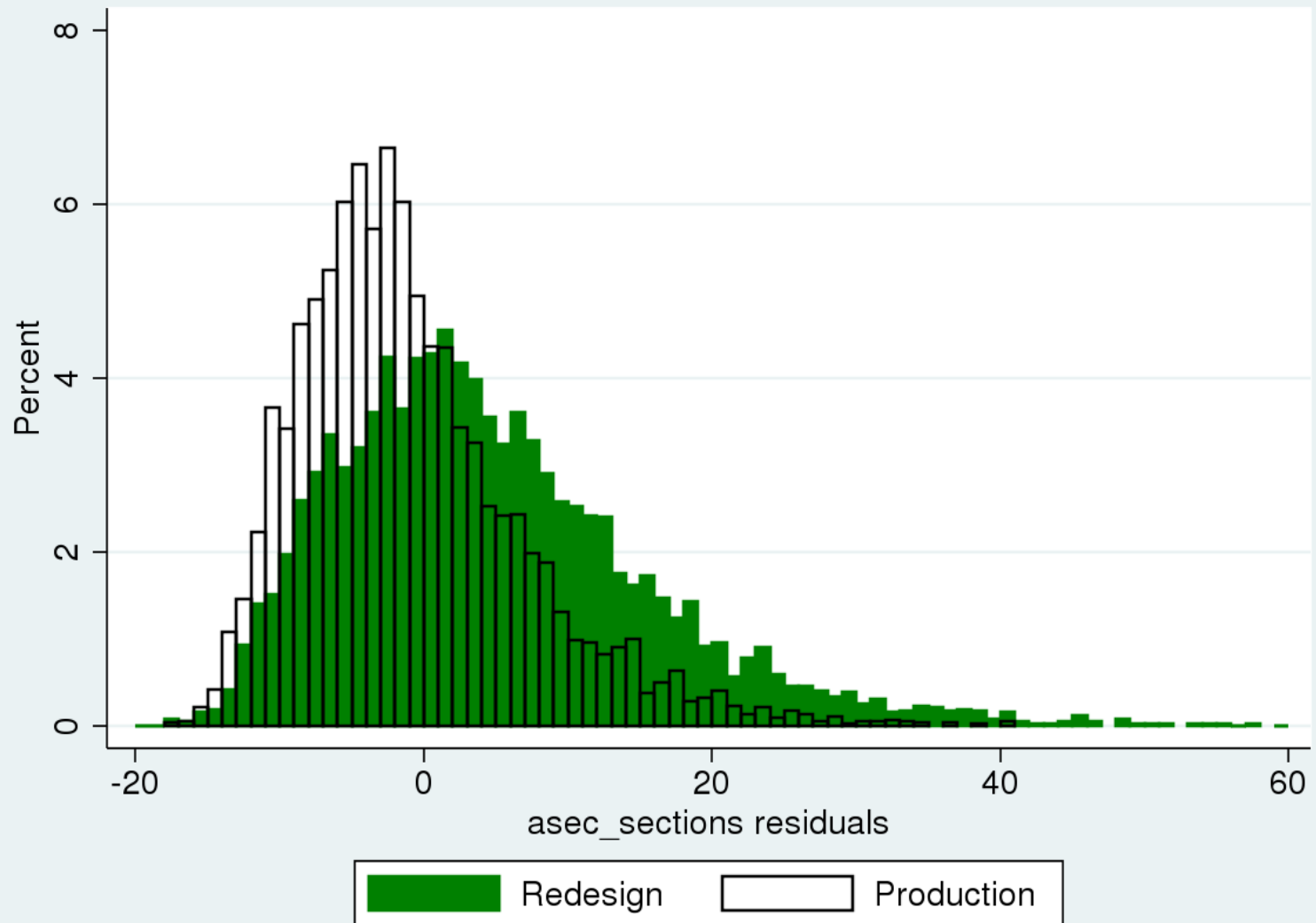
<i>Independent variable</i>	Coef.	Std. Err.	t
Content Test indicator	1.4	>0.1	43.5
Age	0.0	>0.1	3.5
Female	-0.3	>0.1	-1.1
Education (<HS omitted):			
High school	-0.1	0.1	-2.0
Some college	-0.2	0.1	-2.5
Assoc	-0.2	0.1	-2.4
College	-0.2	0.1	-3.6
Household size	0.7	>0.1	56.3
Sample size	13,169		
R ²	0.304		
Unconditional mean difference	1.5		

Regression all sections

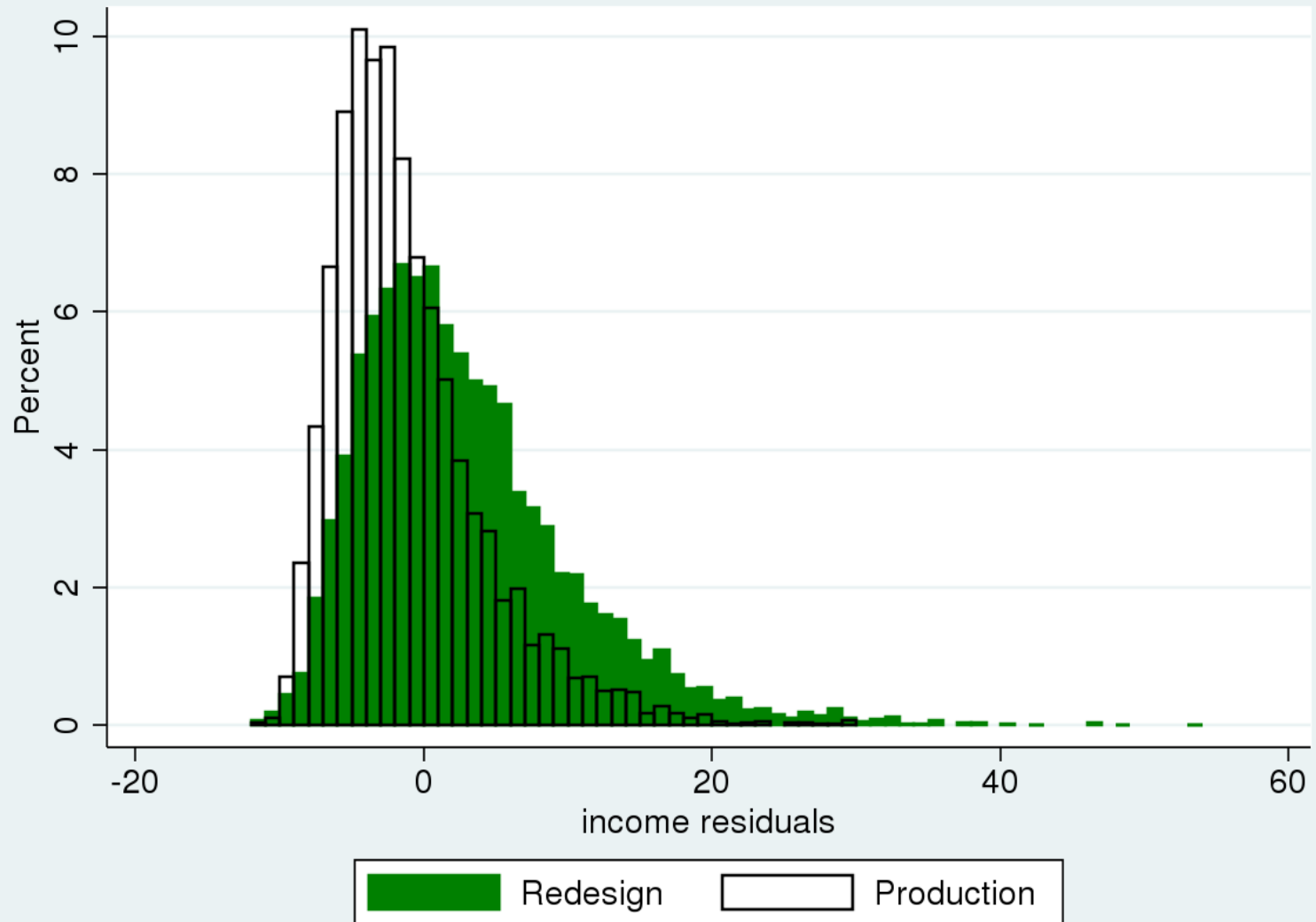
<i>Dependent variable</i>	Coef. on Content Test Indicator	Std. Err.	t	R ²
All sections	4.6	0.2	23.6	0.27
CPS Basic	0.2	0.1	2.7	0.16
ASEC	4.4	0.2	29.0	0.25
Income	3.3	0.1	30.4	0.19
Health	1.4	>0.1	43.5	0.30
Migration	-0.1	>0.1	-6.3	0.06
SPM	-0.3	>0.1	-6.1	0.16

Controls are head's age (linear), sex, and educational attainment; and household size. Sample consists of 13,169 household interviews. Section times (the dependent variables) are measured in minutes.

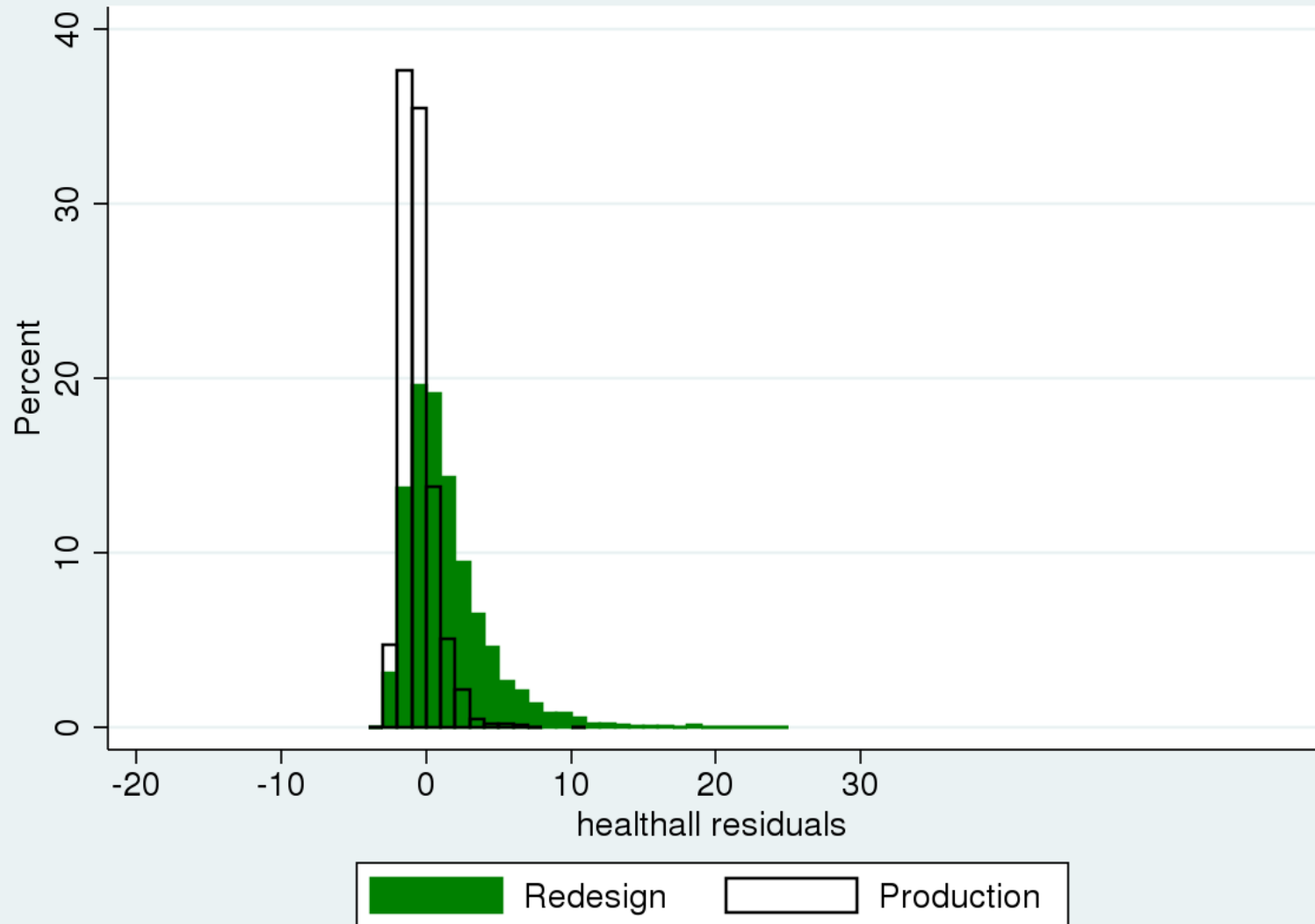
Residuals: ASEC



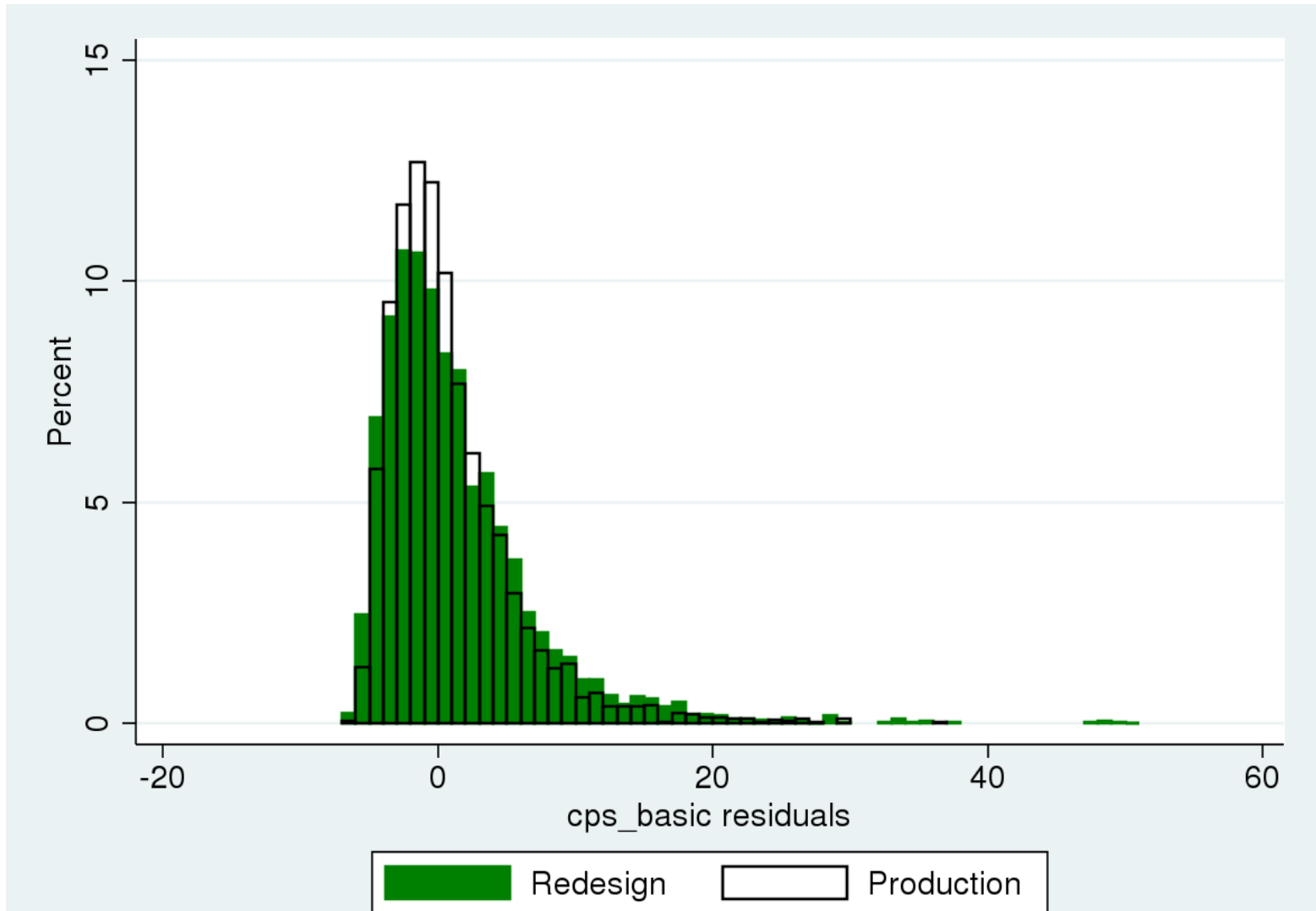
Residuals: Income



Residuals: Health



Residuals: CPS Basic



Regressions w/ CPS Basic section time

<i>Dependent var.</i>	Coefficient on <u>Content Test Indicator</u>				
	Original OLS	CPS Basic control	Std. Err.	t	R ²
All sections	4.6	4.3	0.1	29.6	0.61
CPS Basic	0.2	0.0	0.0	.	1.00
ASEC	4.4	4.3	0.1	29.6	0.32
Income	3.3	3.2	0.1	31.0	0.26
Health	1.4	1.4	>0.1	43.9	0.33
Migration	-0.1	-0.1	>0.1	-6.8	0.09
SPM	-0.3	-0.3	>0.1	-6.6	0.18

Controls are head's age, sex, and educational attainment; household size; and CPS Basic section time. Sample consists of 13,169 household interviews. Section times (the dependent variables) are measured in minutes.

Regression w/ interviewer effects

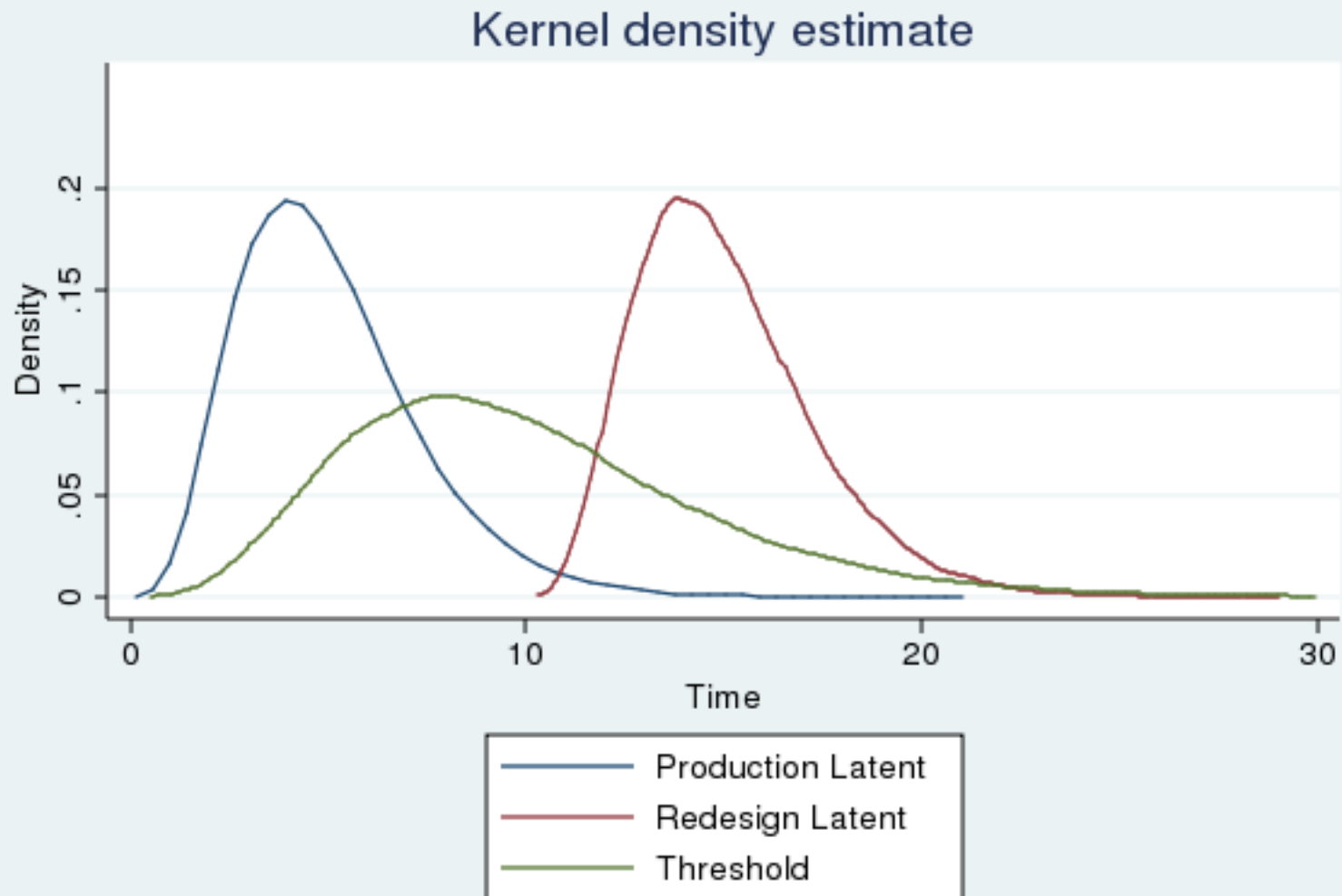
<i>Dependent var.</i>	Coefficient on <u>Content Test Indicator</u>				
	Original OLS	Interviewer Effects	Std. Err.	t	R ²
All sections	4.6	4.9	0.2	22.6	0.40
CPS Basic	0.2	0.2	0.1	1.9	0.23
ASEC	4.4	4.7	0.2	28.4	0.40
Income	3.3	3.5	0.1	28.6	0.31
Health	1.4	1.5	>0.1	38.1	0.37
Migration	-0.1	-0.1	>0.1	-4.3	0.08
SPM	-0.3	-0.2	>0.1	-4.1	0.32

Controls are head's age, sex, and educational attainment; household size; and interviewer effects. Sample consists of 13,169 household interviews. Section times (the dependent variables) are measured in minutes.

All regressions together

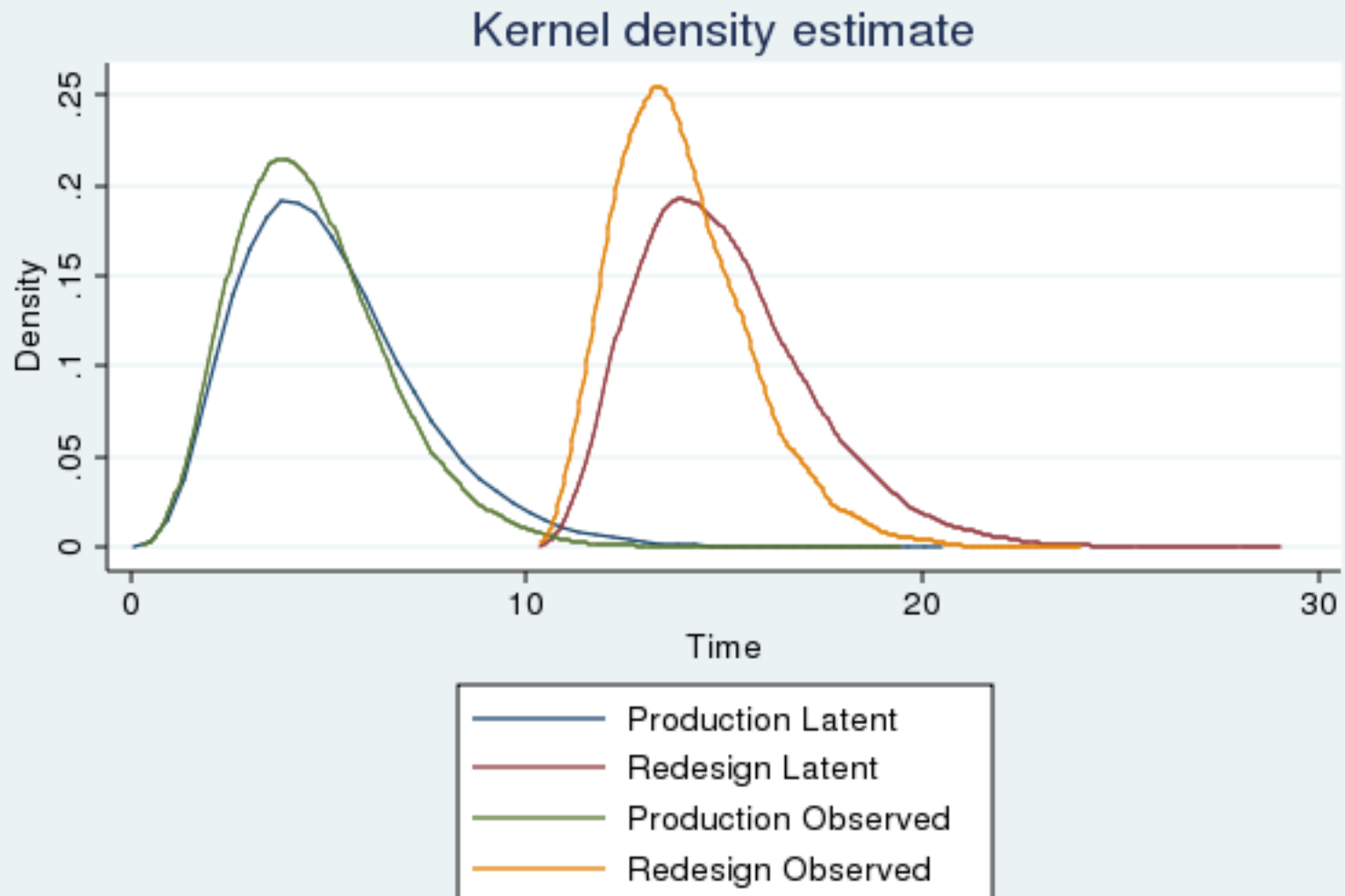
<i>Dependent var.</i>	Unconditional means	OLS Coefficients on Content Test Indicator			
All sections	5.4	4.6	4.3	4.9	4.6
CPS Basic	0.3	0.2	0.0	0.2	0.0
ASEC	5.1	4.4	4.3	4.7	4.6
Income	3.7	3.3	3.2	3.5	3.4
Health	1.5	1.4	1.4	1.5	1.4
Migration	-0.1	-0.1	-0.1	-0.1	-0.1
SPM	-0.1	-0.3	-0.3	-0.2	-0.2
CPS Basic			X		X
Interviewer effects				X	X

Incomplete interviews excluded



kernel = epanechnikov, bandwidth = 0.1938

Incomplete interviews excluded



kernel = epanechnikov, bandwidth = 0.2242

Conclusions

- Redesigned questionnaire takes longer.
- Controlling for sample characteristics **slightly** decreases measured difference.
- Observed difference may understate the true difference in interview length.

Remaining work (for this paper)

- Include incomplete interviews.
- Assess impact of interviewer experience.
- Run regression discontinuity at cutoff for low-income skip pattern.

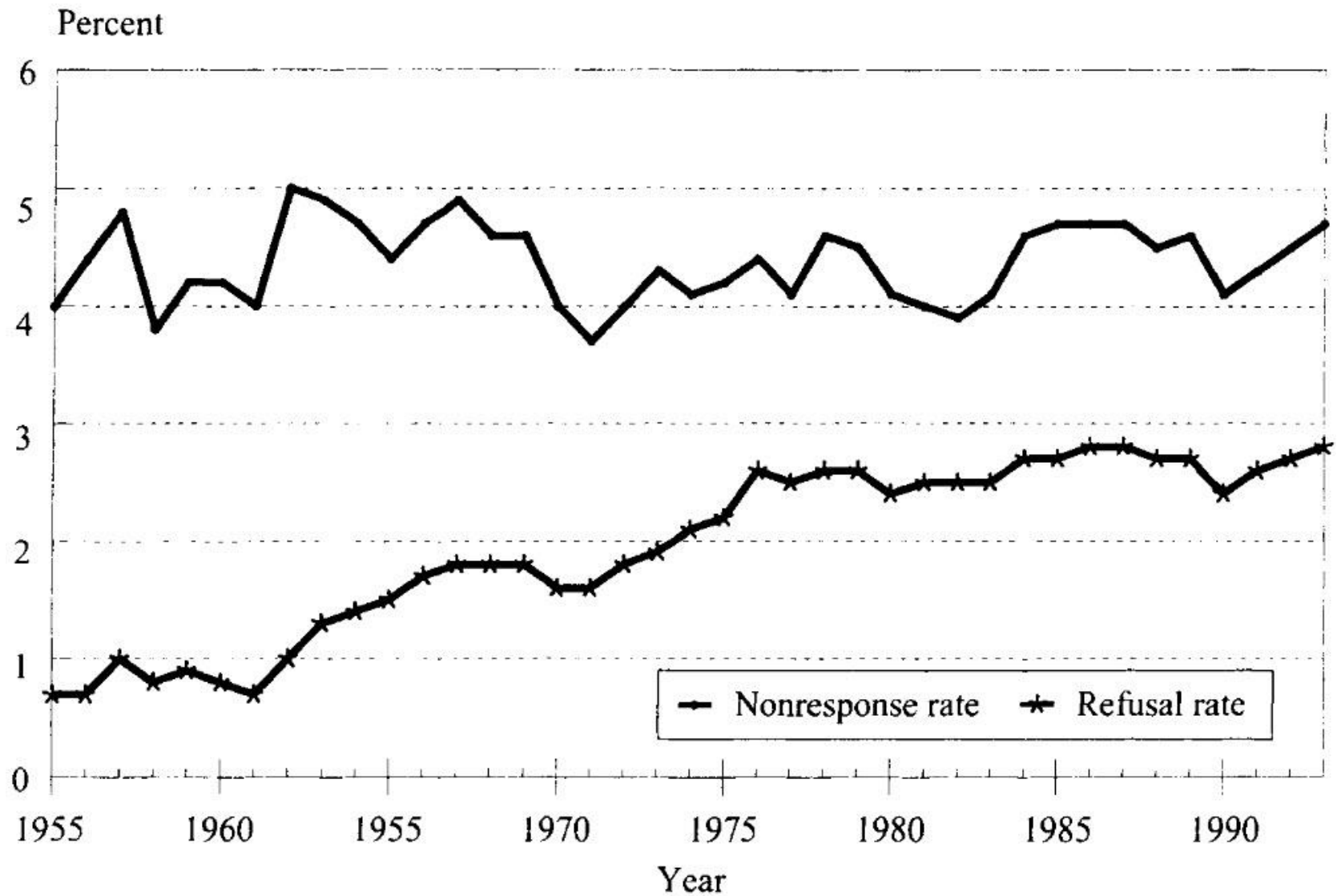
Adam Bee

charles.a.bee@census.gov



Extra Slides

Motivation



Within demographic groups

<i>Group</i>	ASEC			Income		
	Prod.	Redesign	Diff(%)	Prod.	Redesign	Diff(%)
Age of householder						
25 to 61	19.5	24.7	27	11.5	15.2	32
62 and older	19.0	24.1	27	11.6	15.4	34
Household size						
One person	14.0	17.0	22	8.6	10.9	27
Two people	19.6	24.7	26	11.9	15.9	34
Three or four people	22.6	28.1	24	13.3	17.1	29
Five or more people	25.9	32.2	24	14.8	19.0	28

Regression comparison

<i>Independent variable</i>	<u>Dependent variable (section time)</u>		
	ASEC	Health	Income
Content test indicator	4.38	1.43	3.25
Age	0.08	0.00	0.06
Female	-0.31	-0.34	-0.29
Education (<HS omitted):			
High school	0.90	-0.13	0.77
Some college	1.56	-0.17	1.47
Assoc	1.51	-0.18	1.43
College	1.92	-0.23	1.86
Household size	3.13	0.68	1.67
Adj. R-squared	0.252	0.304	0.193