

# Is there a difference in response? Comparing a Web only and mixed mode design in a government customer survey

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## External Quality Survey (EQS)

- › United States Patent and Trademark Office (USPTO)
- › The EQS is a semi-annual customer survey
- › It's a mixed-mode survey: Paper and Web
- › Rotating panel design
- › Decline of RR from 40%-50% to 33%-38%

**For a government customer survey, does a Web-only design produce a higher response rate than a mixed mode design?**

## Study Groups

### Choice N=126

- Choice of paper or Web
- Mail contact

### Web-only N=124

- Web-only
- Email contact

## Findings

- › The Web-only design did not produce a higher response rate than the mixed mode design
- › The Choice group had a significantly higher response rate than the Web-only group ( $p < .001$ )



- › Mailed contact materials were more successful
- › Paper contact may be better than email contact for establishing trust and increasing RR
- › Limitations
  - Samples – small, respondents, received survey 2<sup>nd</sup> time
  - Telephone non-response prompts – Choice group only

## › Next steps

- Examine response rates with variations in both mode of contact and mode of survey administration

**Mail with Choice**

**Mail with Web-only**

**Email with Web-only**

# Thank You

United States Patent and Trademark Office

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# Paper to Mixed-Mode: An Evaluation of Mode Effects

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*Any views expressed are the authors and not necessarily those of the U.S. Census Bureau.*

# School Survey on Crime and Safety (SSOCS)

- Background
  - Sponsored by the National Center for Education Statistics
  - Provides estimates of school crime, discipline, disorder, programs and policies
- Methodology
  - Sampling unit: Public primary, middle, high and combined grade-level schools
  - Mode:
    - Prior to 2018, paper and telephone
    - Experiment in 2018 cycle to include a web option as part of a push methodology

# SSOCS Experiment

- Field experiment as part of the 2018 SSOCS data collection cycle that tested a web option
- 1,150 schools randomly selected to receive a web response option (out of 4,800 sampled schools)

# Contact Strategy

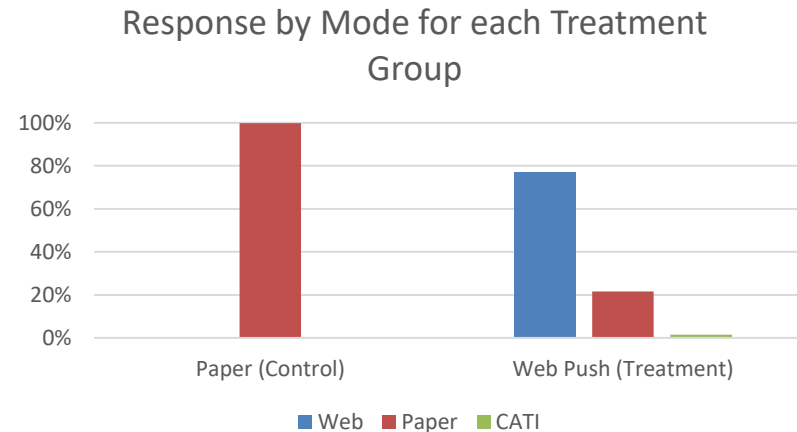
- Paper (control)
  - Web invitations
    - None
  - 4 Questionnaire mailings
    - Weeks 1, 5, 9, 12
  - Email and telephone follow-up
    - Throughout data collection
- Web (treatment)
  - 2 Web invitations
    - weeks 1 and 5
  - 2 Questionnaire mailings
    - weeks 9, 12
  - Email and telephone follow-up
    - Throughout data collection

# Evaluation Measures

- Response rates (AAPOR RR2)
- Responding school characteristics
- Item completion rates
- Key estimates

# Results – Response Rates

- Overall: 60.2%
- Experiment (no significant difference,  $p=0.9875$ ):
  - Paper (control) – 60.1%
  - Web (treatment) – 60.2%



# Results – School Characteristics

- Characteristics Considered:
  - Locale
  - School Size
  - School Level
  - Percent White enrollment
  - Region
  - Full-Time Teachers
  - Percent of Students with Free/Reduced-Priced Lunch
  - Student-to-Full Time Employee (FTE) Teacher Ratio
  - Percent of Schools with at least One Violent Incident
  - Percent of Schools with any Sworn Officer Present
- Response distributions were only significantly different between the web option and paper only groups for the student-to-FTE Teacher ratio

# Results – Item Completion

- Compared item completion rates for over 50 different survey items, using an adjustment for multiple comparisons
- Four yielded a significant difference in completion rates between web option and paper only
- In general, web nominally higher
- But, web completion rates were lower for follow-up items

30. Please record the number of incidents that occurred at school during the 2017–18 school year for the offenses listed below. (NOTE: For each of the sub-items, the number of total incidents recorded should be greater than or equal to the number reported to police or other law enforcement.)

• If none, please select the None box.

Please provide information on:

- The number of incidents, not the number of victims or offenders.
- Recorded incidents, regardless of whether any disciplinary action was taken.
- Recorded incidents, regardless of whether students or non-students were involved.
- Incidents occurring before, during, or after normal school hours.

a. Rape or attempted rape

Total number of recorded incidents ☐ None  
 Number reported to police or other law enforcement ☐ None

b. Sexual assault other than rape (include threatened rape)

Total number of recorded incidents ☐ None  
 Number reported to police or other law enforcement ☐ None

c. Robbery (taking things by force)

i. With a weapon

Total number of recorded incidents ☐ None  
 Number reported to police or other law enforcement ☐ None



# Results – Key Estimates

- Compared key estimates for 45 survey outcomes, using t-tests (adjusted for multiple comparisons) and regression controlling for school characteristics
- Only one significant difference identified, but disappeared after controlling for school characteristics
- Differences ranged from 0.6% to 7.4%
  - Web push > paper for most likert scale questions
  - Paper > web push for most count/total questions

# Conclusions

- Compared to a paper with telephone follow-up design, a web push design had:
  - No impact on response rates
  - High internet use
  - Minimal impact on responding school characteristics
  - Minimal impact on item completion rates
  - No impact on key estimates
- This methodology is viable for future cycles

# Thank you!

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Demographic Statistical Methods Division  
US Census Bureau

# AAPOR 2019



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# Encouraging International Respondents to Choose the Web

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Internal Revenue Service

*\*This research does not represent any official opinions or views of the Internal Revenue Service, United States Treasury or any other government agency.*

June 11, 2019



# IRS Individual Taxpayer Burden (ITB) Survey

- Multi-mode survey conducted annually since 2010 with sample of 20,000 taxpayers \*For this study, we used a large subset of comparable data from the 2017 ITB, since data collection is ongoing
- Measures taxpayer burden in terms of time and money spent on:
  - Recordkeeping
  - Tax planning
  - Gathering tax materials & software
  - Professional tax help
  - Completing & submitting the tax return
- Results used as input for IRS Taxpayer Burden Model



# 2010 ITB Survey Mode Experiment

## Paper only

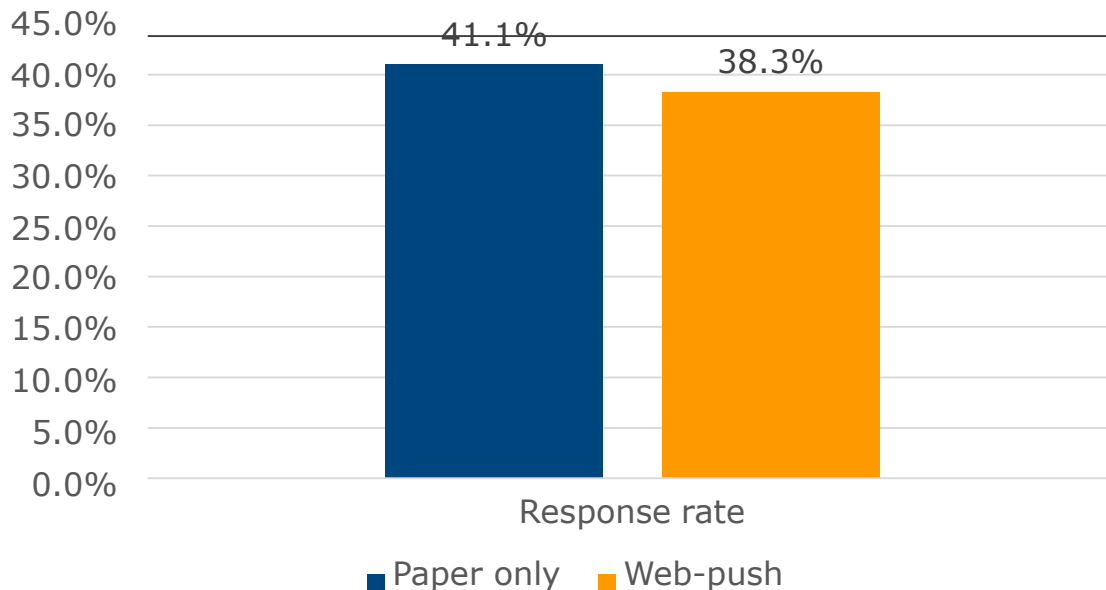
- Respondents received paper questionnaires only, with no web option

## Web-push

- Respondents received web instructions first, and only non-respondents received a paper questionnaire

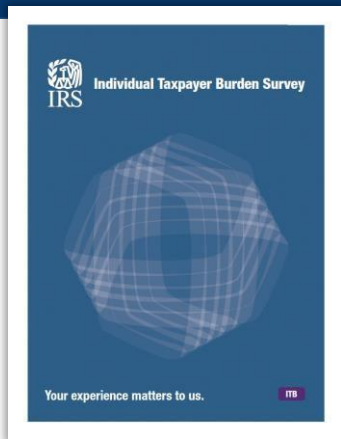
(Newsome et al., 2012)

## Overall response rates



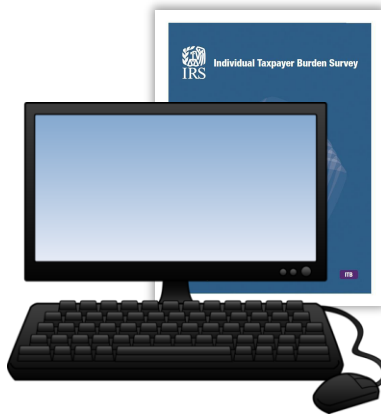
**Significant difference,  $n = 19,383$ ,  $p < 0.01$**

# Options for Subsequent Surveys



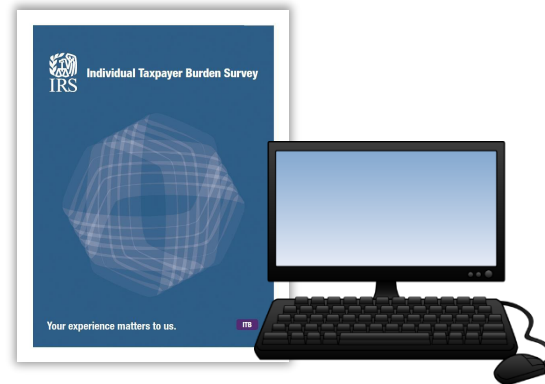
## Paper-Only

Except—there is an expectation that federal surveys should include a web option in this day and age.



## Web-Push

Except—our experiment had just showed depressed response rates with the approach.



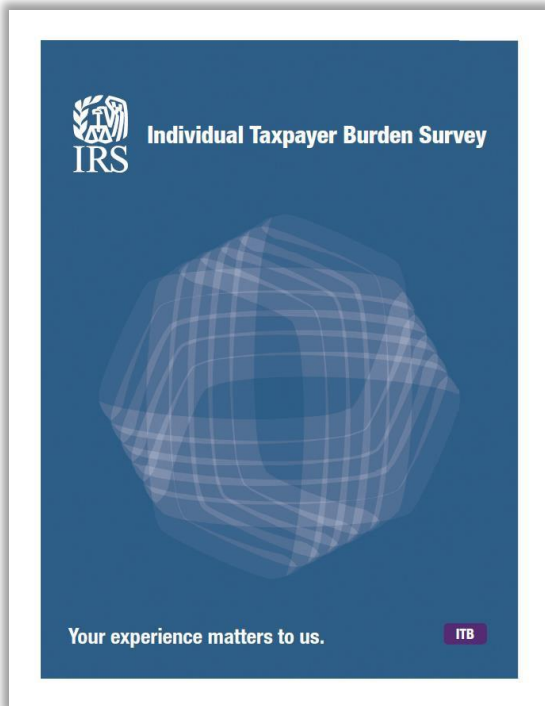
## Concurrent

Offer both paper and web at the same time.

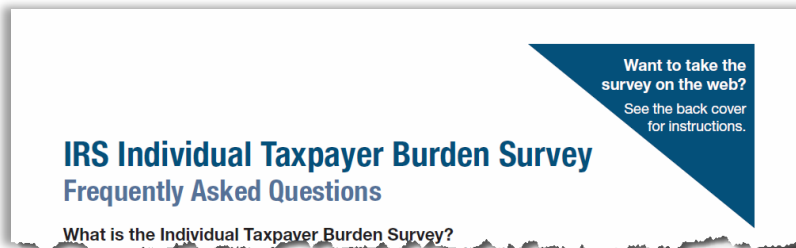
Except...



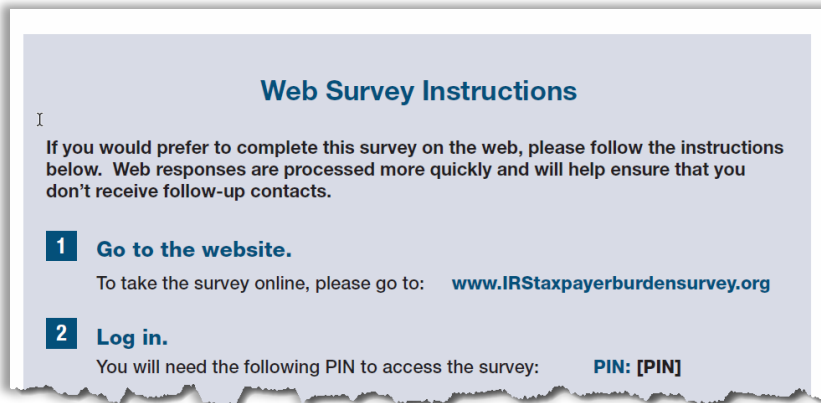
# Concurrent Lite™ Design



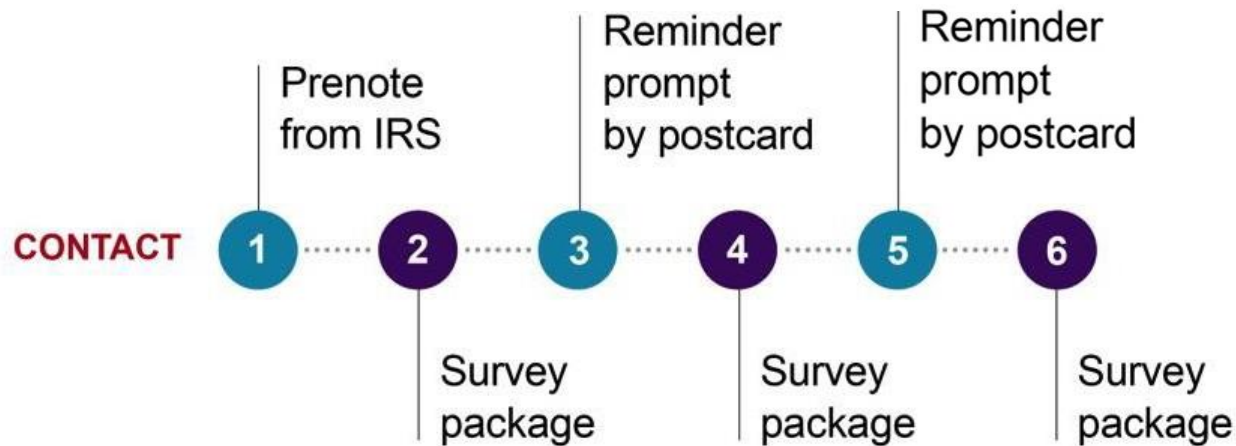
## Call-out on inside of front cover



## Web instructions on back cover

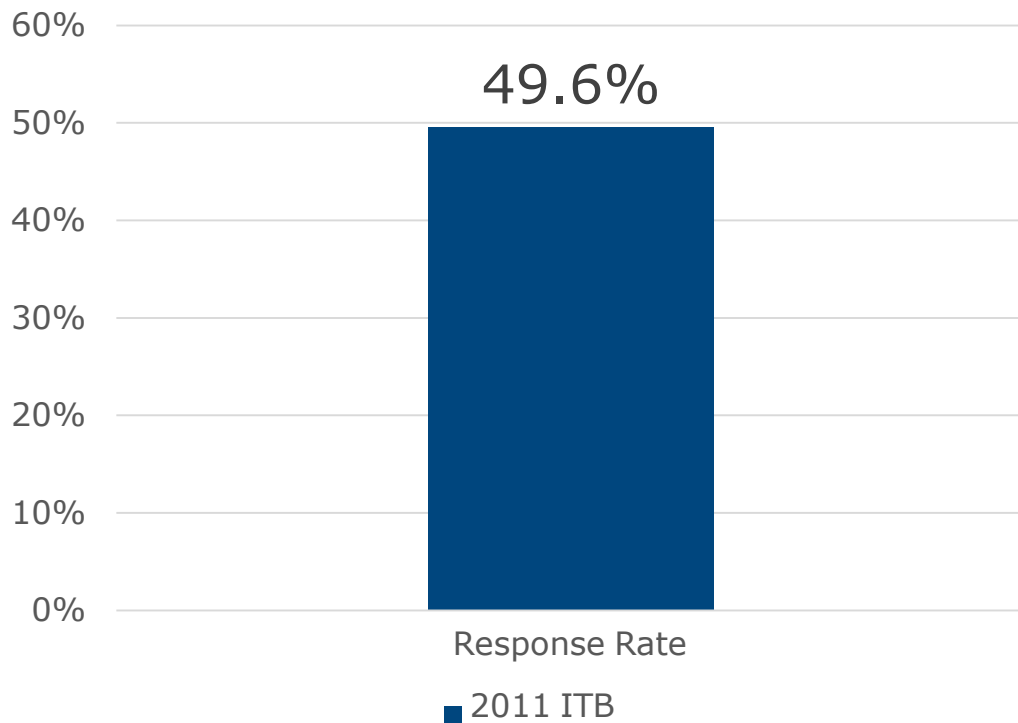


# 2011 ITB Survey Approach

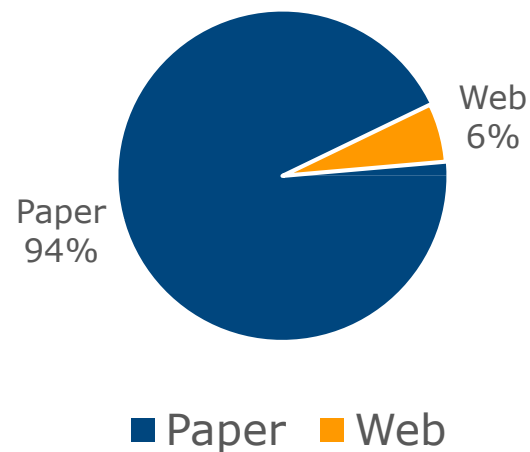


Survey packages include web instructions on the back cover

## 2011 ITB Survey Response Rate

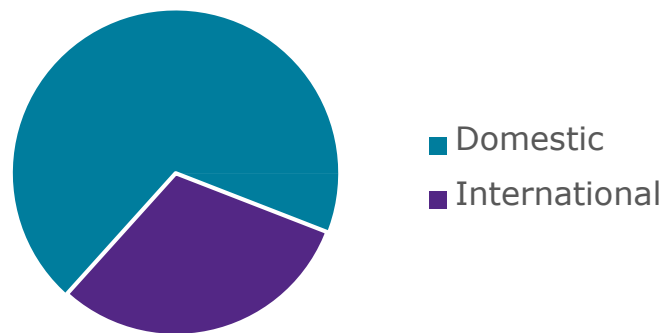


### Mode of completion



## 2015 FATCA Survey

- › Like our standard survey, measures burden in terms of time and money spent on filing tax returns
- › Population, however, is tailored to taxpayers who are Foreign Account Tax Compliance Act (FATCA) filers who reported foreign accounts or foreign assets on their tax return
- › For the 2015 survey, we sent IRS ITB FATCA surveys to approximately 5,000 taxpayers
- › Of these,
  - 3459 had domestic addresses
  - 1537 had international addresses



# 2015 FATCA Survey: Contacts

## › Lighter Concurrent Lite™

Contact 1	Prenote
Contact 2	Survey package with web instructions
Contact 3	Postcard reminder
Contact 4	Survey package with web instructions

Shortened our number of contacts (from 6 to 4) in light of the number of international mailings

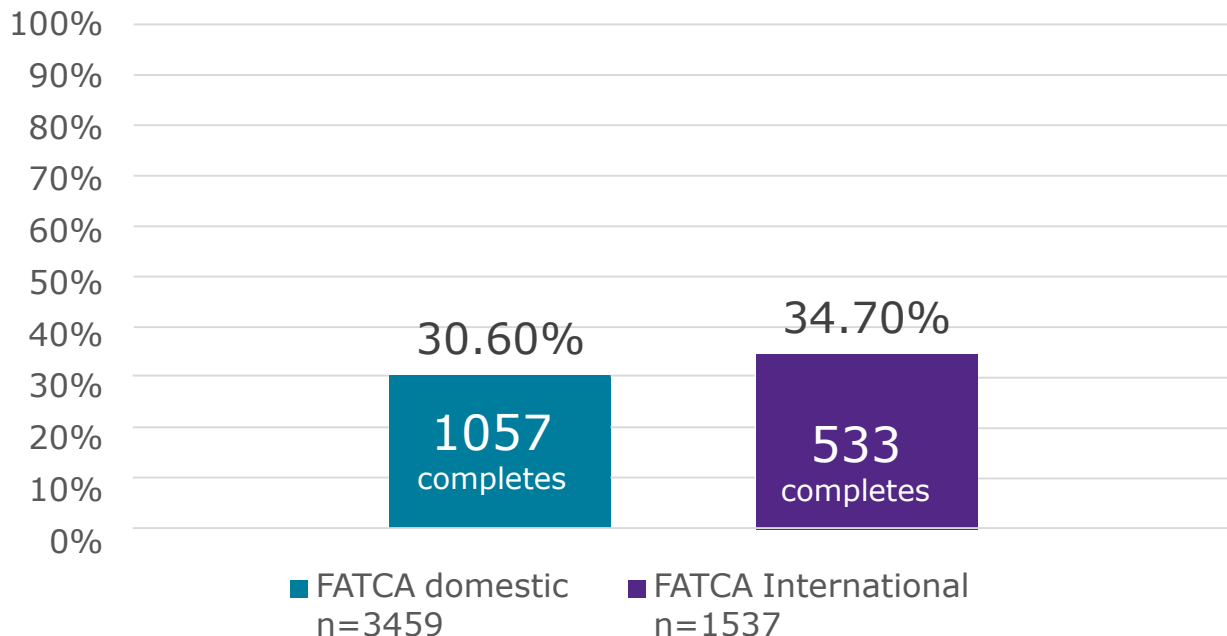
*DISCLAIMER: All Trademarks are for Westat's entertainment purposes only.*

# 2015 FATCA Survey: Response rates

Overall Response  
Rate

**31.8%**

(comparable to  
standard survey with  
standard population)



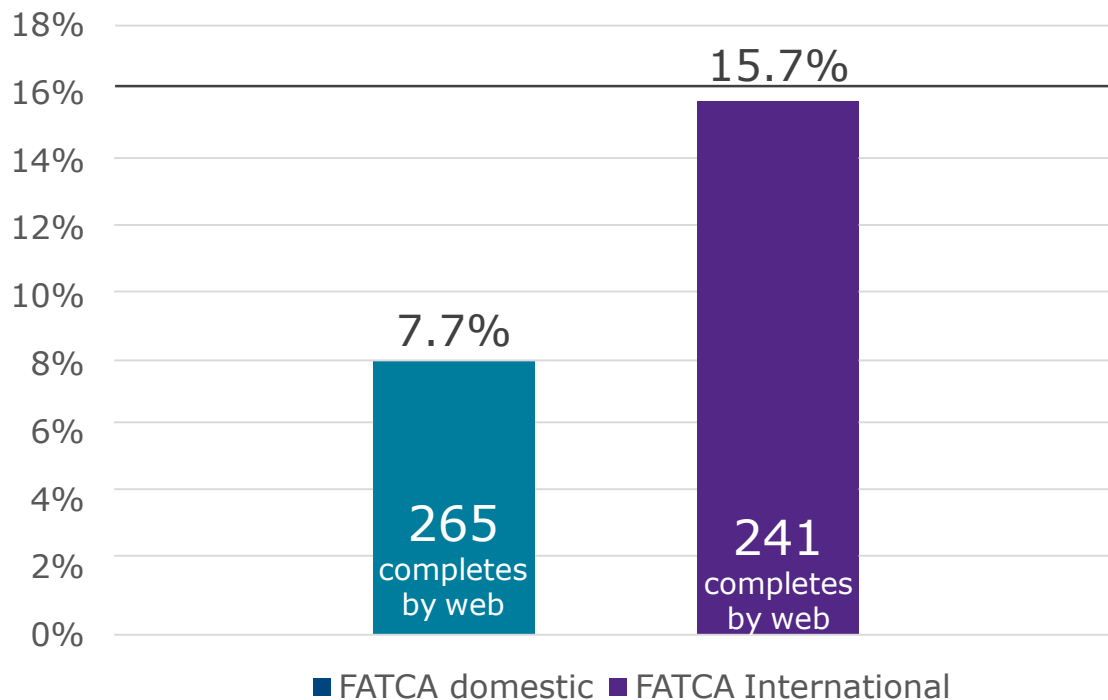
**Significant difference,  $p=0.002$**

# 2015 FATCA Survey: Percent of completes that were web completes

Overall Percentage of  
Web Completes

**10.1%**

(higher than standard  
survey with standard  
population)



**Significant difference,  $p < 0.0001$**

# 2017 FATCA Survey: Experimental Design\*

## Lighter Concurrent Lite™ n=1250

Contact 1	Prenote
Contact 2	<b>Survey package</b> with web instructions
Contact 3	Postcard reminder with web instructions
Contact 4	<b>Survey package</b> with web instructions

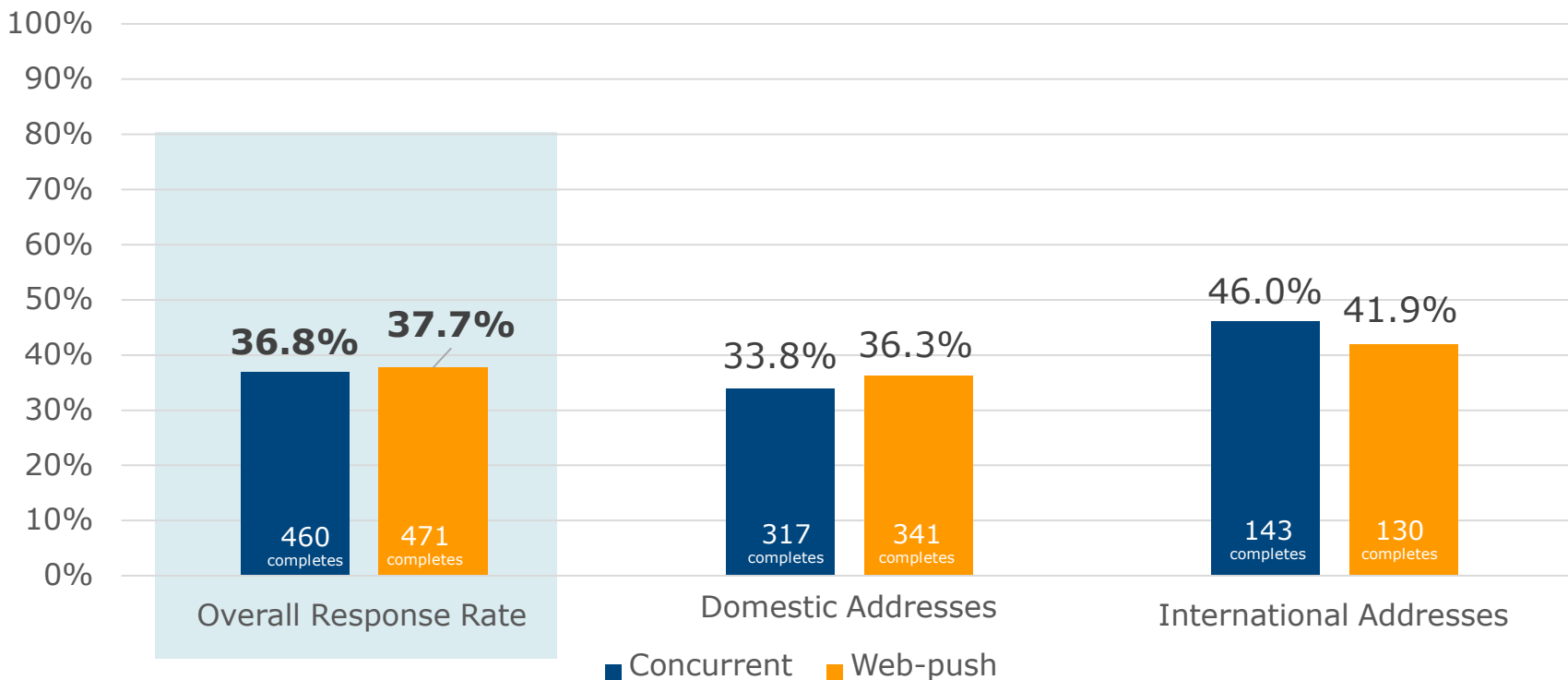
## Web-Push n=1250

Contact 1	Prenote with web instructions
Contact 2	Postcard reminder with web instructions
Contact 3	<b>Survey package</b> with web instructions
Contact 4	<b>Survey package</b> with web instructions

*\*For this study, since data collection is ongoing, we only included data for the first wave, which consists of 2500 respondents.*

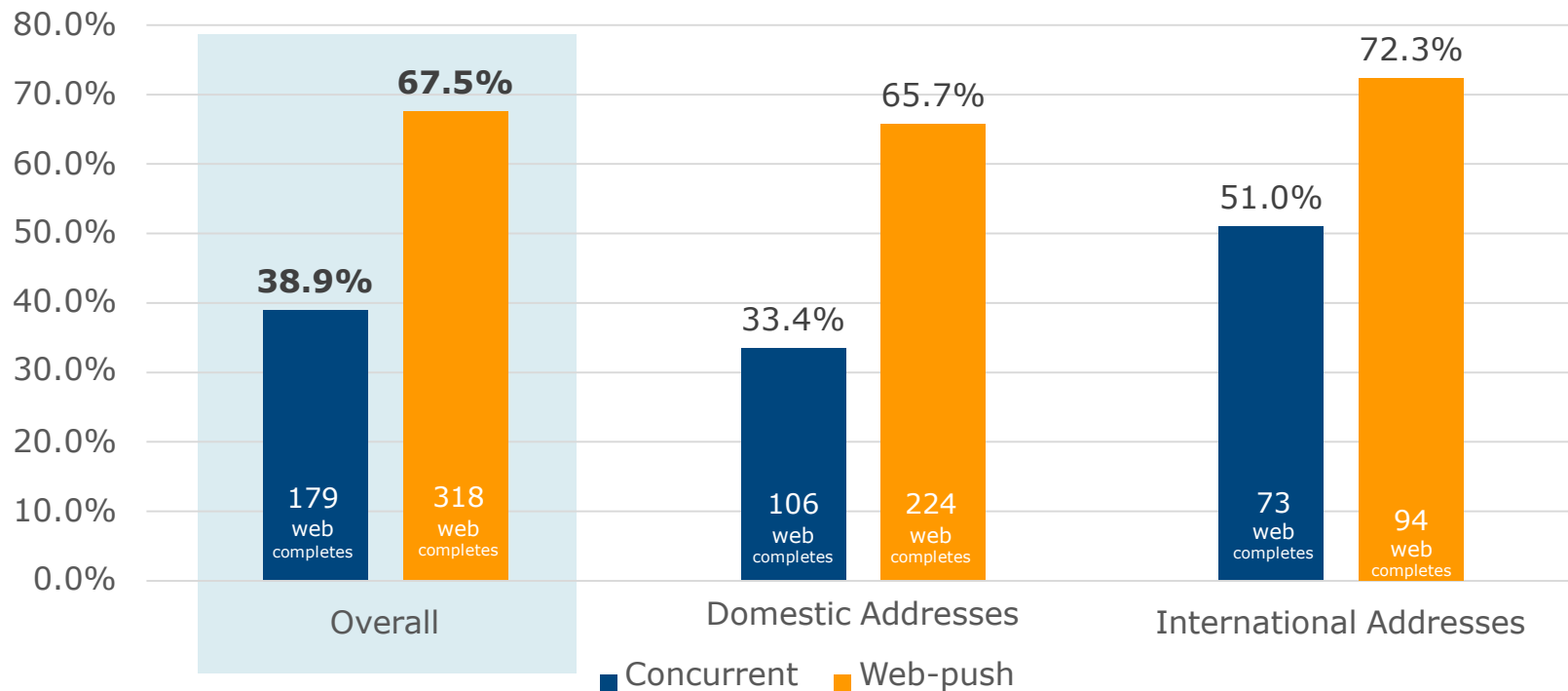


# 2017 FATCA Survey: Overall response rates



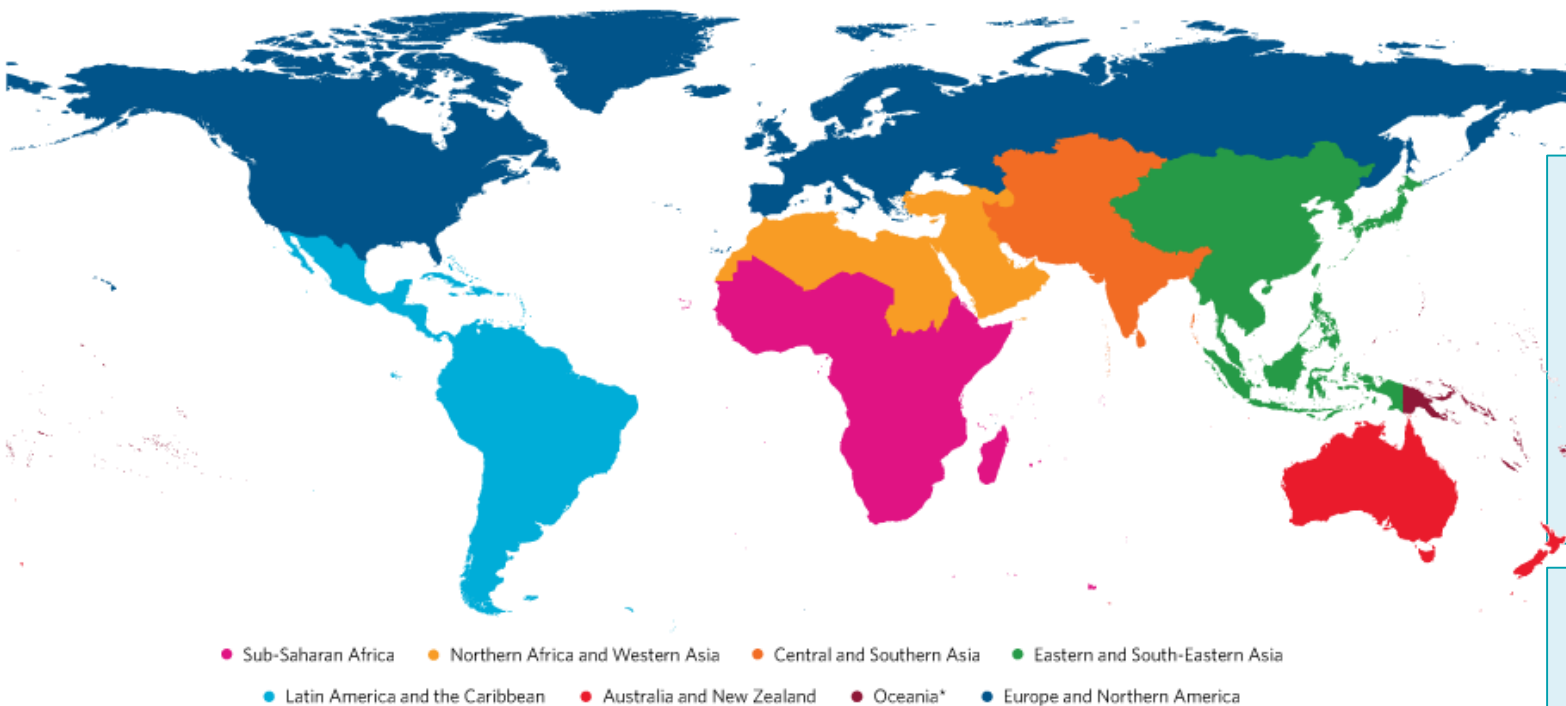
**No significant differences**

## 2017 FATCA Survey: Percent of completes that were web completes



**Significant difference,  $p < 0.0001$ ;  $p < 0.0001$ ;  $p = 0.03$**

# Geographic Regions



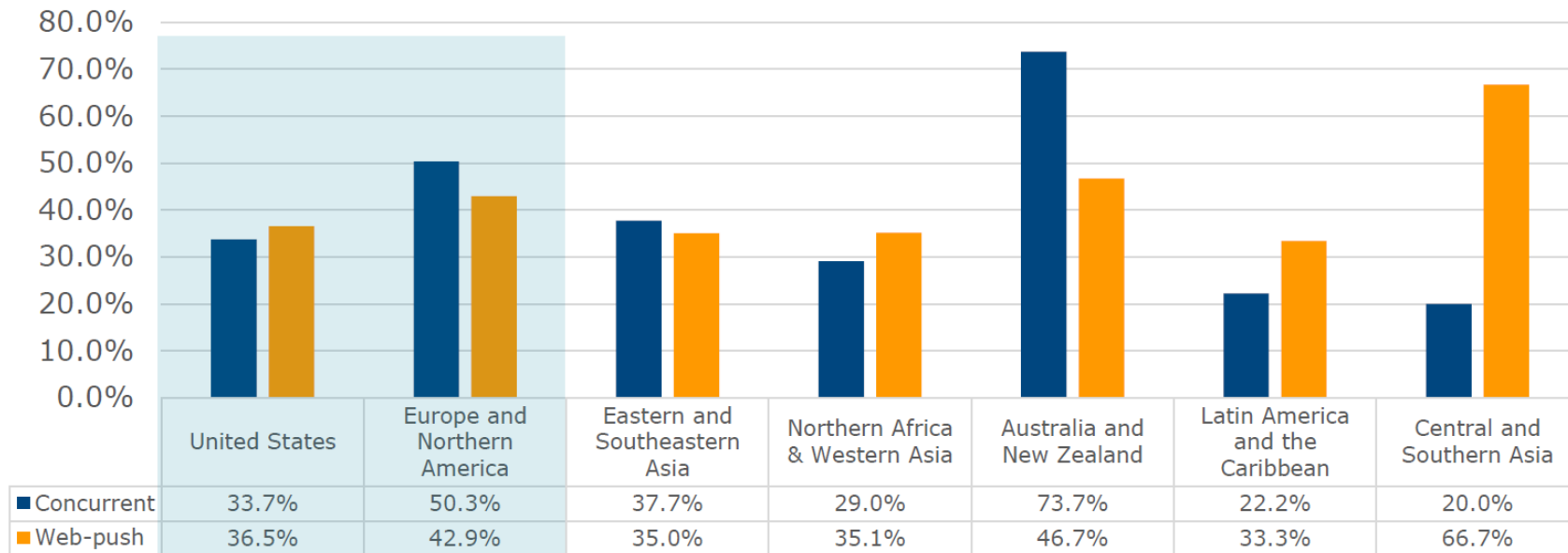
Grouped  
countries into  
8 regions as  
defined by  
United  
Nations  
Statistics  
Division

Except  
United States

The country groupings are based on the geographic regions defined under the Standard Country or Area Codes for Statistical Use (known as M49) of the United Nations Statistics Division. The geographic regions are shown on the map above. For the purpose of presentation, some of the M49 regions have been combined.

# 2017 FATCA Survey: Response by region

## Response Rates by Geographic Regions

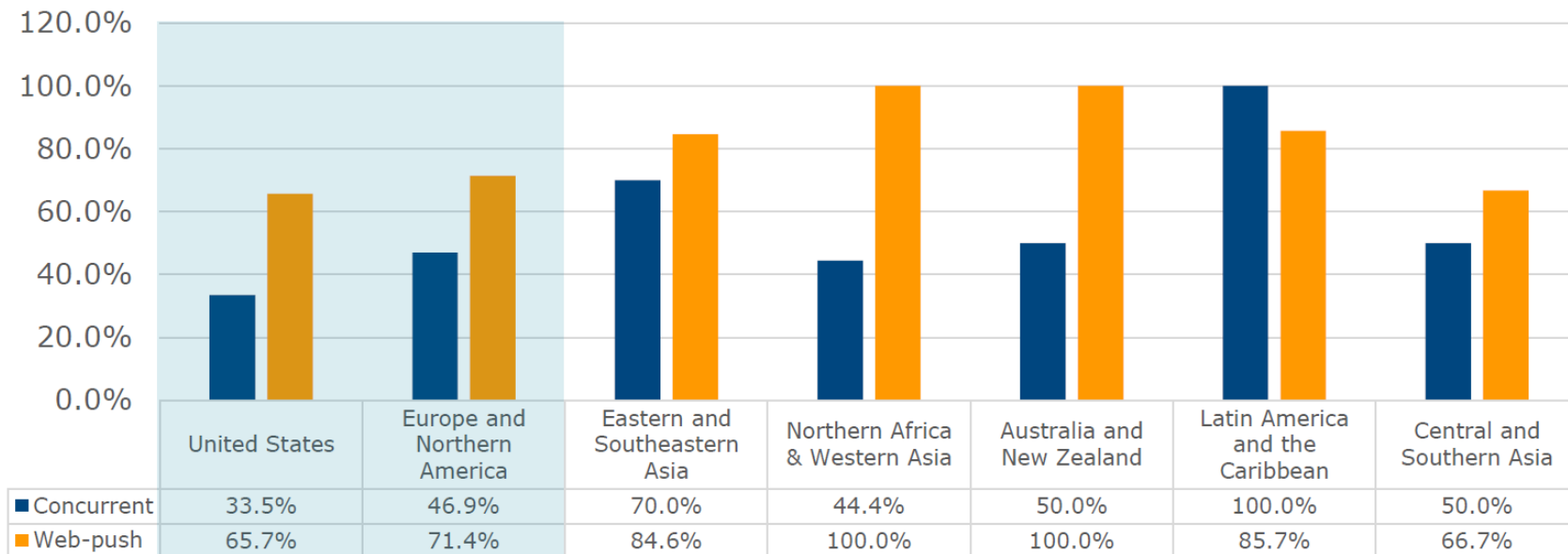


**No significant difference**

■ Concurrent ■ Web-push

# 2017 FATCA Survey: Response by region

Percent of completes that were web completes



**Significant difference,  $p < 0.01$**

■ Concurrent ■ Web-push

# Conclusions

- › For this population of respondents (taxpayers who report foreign accounts or foreign assets on their tax returns), the web-push does not appear to depress response.
- › The web-push significantly increases the number of web completes.
- › Once second wave of data collection is complete (bringing full sample size to 4000), we will revisit analysis to confirm there is no impact on overall response (particularly among domestic respondents). We'll also look at demographic differences, such as age and income.
- › We'll present our findings at the 2019 ESRA Conference in July.



# Thank You

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