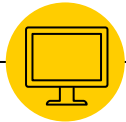


King County

Senior Property Tax Exemption Form



Usability Study Results by:

Victor Allen, Colleen McDevitt, Kevin Philbin, & Cyndi Thompson

26,000+ eligible seniors
in King County

Only 1% of eligible seniors are enrolled



1

Project Overview


Context & Project Goals



Project Origins

The King County Assessor's office was looking to:

- Digitize their property tax exemption form
- Let low-income senior residents apply for an exemption on their property tax
- Create a proof-of-concept for how this form might work



Dept. of Assessments
King County Admin Bldg
500 Fourth Ave., Room 740
Seattle, WA 98104-2384
206-296-3920

SENIOR CITIZEN & DISABLED PERSONS REDUCTION IN PROPERTY TAXES
File Application with the King County Assessor for taxes due in **2018** per RCW 84.36

- I am applying for a senior citizen or disabled exemption and certify the following (mark appropriate boxes).
 - I currently **own and occupy** this property as my principal residence as of December 31, 2017.
 - OR** I have attached a copy of a Trust or recorded Lease for Life / Life Estate indicating my retained ownership.
 - I own more than one property. Please provide the address and location of all other properties _____
 - I am or will be 61 years of age or older **on or before December 31, 2017**. Attach proof of age such as driver's license.
 - I am **disabled and unable to work** due to my disability. Attach a current physician's statement attesting to your disability if under the age of 61 OR attach a copy of your SSF award letter.
 - I am a compensated **Veteran with a VA determined, 100% service-connected disability**. Attach your VA award letter.
 - My spouse / domestic partner had an exemption, and I was at least 57 years old in the year he/she passed away.
- Birthdate: _____ Spouse/ Domestic Partner Birthdate: _____ Date Property Purchased / Occupied: _____
- IF KNOWN: Parcel /Tax Account #: _____ (otherwise, leave blank)

COMBINED DISPOSABLE INCOME CALCULATION: Attach copy of your IRS return, social security, copies of 1099s and include income from spouse/domestic partner or co-tenant(s). While all income sources must be disclosed, not all income sources are included in the final combined disposable income calculation. Failure to comply may result in delay or denial of application. See reverse for more detail.			
Total Earned Wages	\$ _____	Public Assistance and Alimony Rec'd	\$ _____
NET Social Security (less Medicare)	\$ _____	Money received from another Country	\$ _____
VA Benefit or Disability Income	\$ _____	Money received from family members	\$ _____
Retirement and Pension Income	\$ _____	Money earned by a co-tenant	\$ _____
IRA or Annuity Disbursements	\$ _____	Other financial resources or winnings	\$ _____
Unemployment Income	\$ _____	INCOME SUBTOTAL	\$ _____
Taxable & Non-Taxable Interest or Dividends (Schedule B)	\$ _____	NON-REIMBURSED EXPENSES (DEDUCTIONS)	
Business Income before Depreciation	\$ _____	- Assisted living facility/Adult Family Home	-
Capital Gains (DO NOT deduct ANY Capital Losses)	\$ _____	- In-Home Care OR	-
Rental Income before Depreciation	\$ _____	- Nursing Home Expenses	-
Trust, Partnership, Estate or Royalty	\$ _____	- Non-Reimbursed Prescription Costs and	-
Taxable & Non-Taxable Bonds	\$ _____	- Approved Medicare plans	-
		- IRS Form 1040 (line 36 deduction) OR	-
		1040A (line 20 deduction)	-
		NET TOTAL 2017 INCOME:	\$ _____

Documentation of income and expenses must be included

5.	Chairman's Name: _____	Spouse/Domestic Partner/Co-Tenant Name: _____
	Property Address: _____	
	City, State, Zip: _____	Phone: _____
	Mailing Address if different: _____	Email: _____

Any exemption granted through willfully providing erroneous information shall be subject to the correct tax being assessed for the last three (3) years, plus a 100% penalty, (RCW 84.40.130). I declare under the penalties of perjury, that all of the foregoing statements are true.
Your signature must be witnessed by two (2) people OR by one (1) Deputy Assessor.

Chairman's Signature _____	Date Signed _____	Witness Signature _____	Date Signed _____
Deputy Assessor: _____	Date Signed _____	Witness Signature _____	Date Signed _____

For Department Use Only:			
Ex Level:	S	P	F
	Approved	Denied	Reviewer Initials: _____
			Need Seg? Land? Imps? Office Space? YES NO

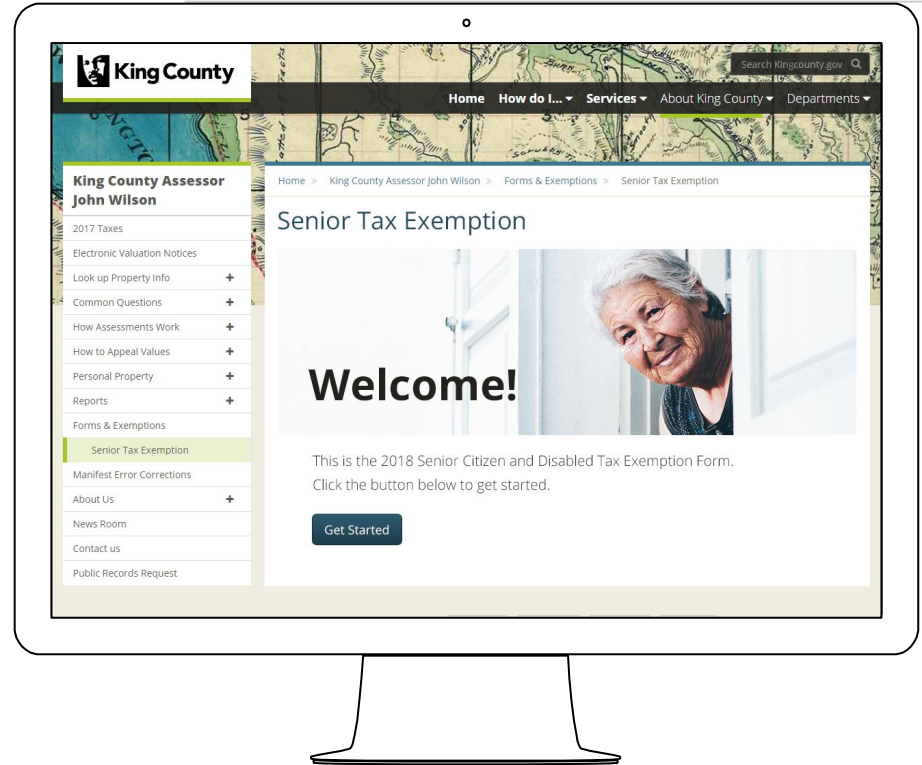
DOA Form 9210 (Rev 12/1/17)

Current Form



The Demo Form

- The forms was designed to fit inside the larger King County site
- They enter information like their parcel number, birthdate, marital status, and income
- They must upload documentation or mail it in later





The Demo Form

- The forms was designed to fit inside the larger King County site
- They enter information like their parcel number, birthdate, marital status, and income
- They must upload documentation or mail it in later

The screenshot displays a web interface for the King County Assessor John Wilson. The page is titled "Senior Tax Exemption" and features a progress bar with five steps: 1. Property, 2. Personal Details, 3. Income, 4. Documentation, and 5. Review. The current step is "Enter Your Property Address".

The form includes a sidebar menu with the following items: 2017 Taxes, Electronic Valuation Notices, Look up Property Info (+), Common Questions (+), How Assessments Work (+), How to Appeal Values (+), Personal Property (+), Reports (+), Forms & Exemptions, Senior Tax Exemption (highlighted), Manifest Error Corrections, About Us (+), News Room, Contact us, and Public Records Request.

The main content area shows the following information:

- Home » King County Assessor John Wilson » Forms & Exemptions » Senior Tax Exemption
- Hi Johnathan,
- Enter Your Property Address**
- You qualify if you: **own and occupy** a house, mobile home, condo, or co-op as your principal residence as of December 31, 2017 **OR** you have a Trust or Lease indicating your retained ownership.
- My Primary Residence**
- PARCEL NUMBER: [input field] Find on Map 🔍
- PURCHASED: Month (MM), Day (DD), Year (YYYY), Amount (\$ [input field]) Recorder's Office
- Is your home part of a Trust? NO YES
- + Add Another Property
- Buttons: Back, Continue



The Demo Form

- The forms was designed to fit inside the larger King County site
- They enter information like their parcel number, birthdate, marital status, and income
- They must upload documentation or mail it in later

King County Assessor
John Wilson

2017 Taxes

Electronic Valuation Notices

Look up Property Info +

Common Questions +

How Assessments Work +

How to Appeal Values +

Personal Property +

Reports +

Forms & Exemptions

Senior Tax Exemption

Manifest Error Corrections

About Us +

News Room

Contact us

Public Records Request

Home > King County Assessor John Wilson > Forms & Exemptions > Senior Tax Exemption

1 2 3 4 5

Property Personal Details Income Documentation Review

Let's see if you qualify

Enter your birthday

Month Day Year

MM DD YYYY

What's your marital status?

Single Married Domestic Partnership Widowed

Tell us about your spouse

First Name M. Last Name

Name

Month Day Year

Birthday MM DD YYYY

Back Continue



The Demo Form

- The forms was designed to fit inside the larger King County site
- They enter information like their parcel number, birthdate, marital status, and income
- They must upload documentation or mail it in later

King County Assessor
John Wilson

2017 Taxes

Electronic Valuation Notices

Look up Property Info +

Common Questions +

How Assessments Work +

How to Appeal Values +

Personal Property +

Reports +

Forms & Exemptions

Senior Tax Exemption

Manifest Error Corrections

About Us +

News Room

Contact us

Public Records Request

Home > King County Assessor John Wilson > Forms & Exemptions > Senior Tax Exemption

Property Personal Details **Income** Documentation Review

Enter All Your Income

Remember to include all sources of income to avoid problems with your application.

Total Earned Wages LINE 21 \$ 11,801

NET Social Security (less Medicare) LINE 38 \$

VA Benefit or Disability Income LINE 201 \$

Retirement and Pension Income LINE 21 \$

IRA or Annuity Disbursements LINE 38 \$

Unemployment Income LINE 38 \$

Taxable & Non-Taxable Interest or Dividends (Schedule B) LINE 21 \$

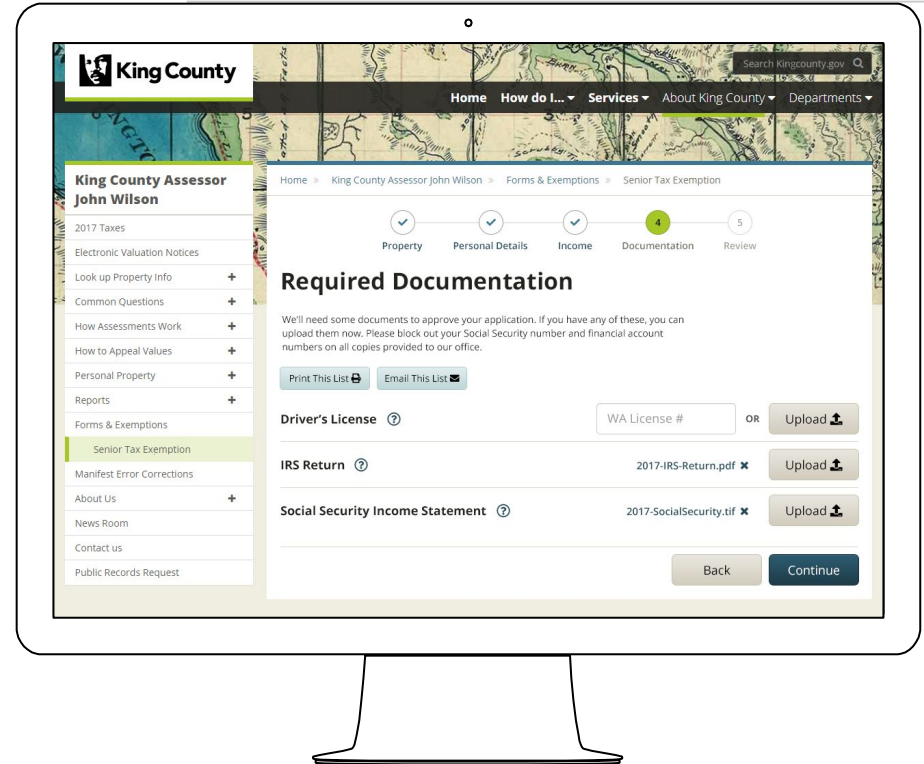
Business Income before Depreciation LINE 38 \$

Capital Gains (DO NOT deduct ANY capital losses) LINE 201 \$



The Demo Form

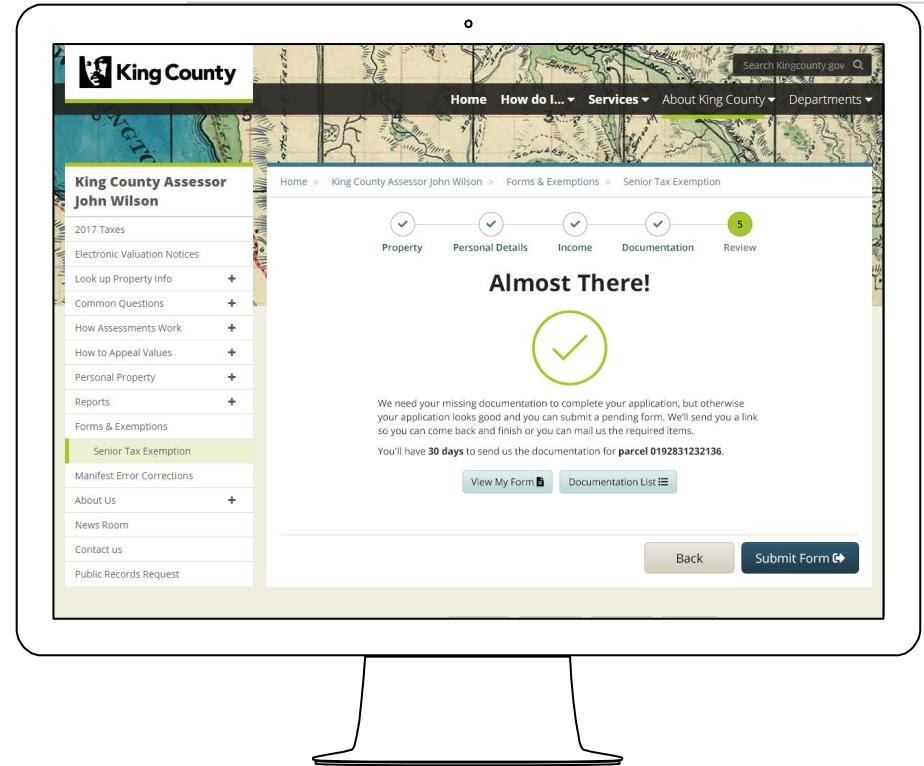
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The Demo Form

- The forms was designed to fit inside the larger King County site
- They enter information like their parcel number, birthdate, marital status, and income
- They must upload documentation or mail it in later





Project Goals

*The King County Assessor's office sought to meet two primary goals:**

Maximize the number of successful applications by qualifying users

Minimize the applications submitted and time spent by non-qualifying users

** Developed by our team based on assumptions of client goals*

2

Study & Findings

What we did & what we learned



Participants



P1



P2



P3



P4



P5




- Five seniors
- Homeowners & renters
- Ages 59 - 77
- Varying digital literacy & comfort with technology
- King County residents



Executive Summary

A number of critical, but solvable issues were found

Participants were receptive to an online application, but unable to overcome critical problems.

Severity Rating	Key Issues	Principle Recommendations
Critical 	No participant successfully completed the application from issues uploading documents	Provide clear instructions for how to complete by mail or online
Critical 	Participants didn't know if they qualify, during or after completing application	Start with a pre-qualification test
Serious 	Unstated document requirements drove abandonment	Provide requirements up front and estimated time to complete



No participants successfully completed the application They could not or would not upload required documents

- **4 of 5** participants would **not** have had digital documentation
- **3 of 5** participants could **not** scan documents for uploading
- **3 of 5** participants would **choose not** upload documents
- **2 of 5** participants were comfortable with photographing documents

*“When I was at Social Security **this is what killed me**, right here.”
“**I don’t even know how to upload** anything, you know?”*

P3

*“How would I upload it?
I wouldn’t know.”*

P1

*“It was **a struggle to upload** things. My gut reaction is to put it in the mail.”*

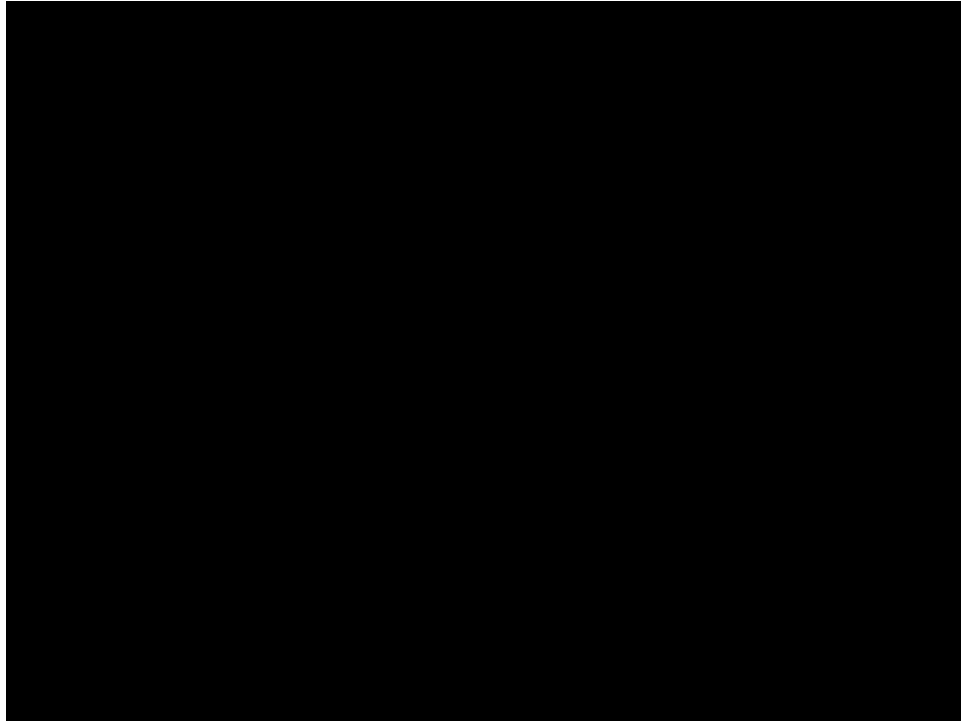
P4

*“I’m worried about my info.
What did I just do?”*

P2



No participants successfully completed the application
They could not or would not upload required documents





No participants successfully completed the application They could not or would not upload required documents

Recommendations

- Provide alternate methods for submitting the application and required documentation, particularly via regular mail
- Generate a printable version of completed application that is suitable for mailing
- Provide explicit privacy and security information regarding information handling
- Allow users to photograph documents and submit images via their phones
- Provide additional help or references to services for users to scan documents



Participants do not know if they qualify, during or after completing the application

- **5 of 5** participants were **unable** to determine if they qualify
- There are **three opportunities** to qualify users (parcel, age and income):
 - **0 of 3** provide explicit feedback to users regarding qualification
 - **2 of 3** provide feedback as validation errors
 - **1 of 3** allows users to continue even if they do not qualify

*“I still don’t know if I qualify.
I’d be **banging my head!**”*

P2

*“**Zero personal info until I qualify.**
That’s how I think it should be done.”*

P5

*“It said I qualify, now it says I don’t!”
“All of a sudden, **I don’t know anymore.**”*

P4



Participants do not know if they qualify, during or after completing the application

The screenshot shows a web application interface for property tax assessment. At the top, a progress bar indicates the user is on step 1 of 5: Property, Personal Details, Income, Documents, and Review. The user is identified as 'Hi Ginger'. The main heading is 'Enter your property address'. Below this, a note states: 'You qualify if you own and occupy a house, mobile home, condo, or co-op as your principal residence as of December 31, 2017 OR you have a Trust or Lease indicating your retained ownership.'

The section 'My Primary Residence' contains a 'PARCEL NUMBER' field with the value '1331560745' and a 'Find on Map' link. Below this is a 'PURCHASES' table:

Month	Day	Year	Amount	
03	25	1997	102000	Recorders Office

At the bottom of the form, there is a question 'Is your home part of a Trust?' with 'NO' and 'YES' radio buttons. 'Back' and 'Continue' buttons are visible at the bottom right of the form.

The video overlay on the right shows a woman with short white hair and glasses, looking at the camera. She is in a room with a lamp and a window with curtains visible in the background.



Participants do not know if they qualify, during or after completing the application

Recommendations

- ◉ Allow users to pre-qualify before beginning the application
- ◉ Describe qualification requirements at start
- ◉ Stop application process and provide obvious feedback if user submits correct, but disqualifying information
- ◉ Reduce ambiguity of instructions related to qualifying information
- ◉ Notify seniors by mail if they might qualify. Possibly as part of their property value assessment postcard



Unstated document requirements surprised participants and drove abandonment of the application

- **3 of 5** participants said they would have abandoned the application before reaching the documentation section
- **2 of 5** participants were unpleasantly surprised by requests for sensitive information while completing the application
- **4 of 5** participants requested that information requirements be provided at the start

*“I’d read that and say ‘no’ I’d email this about income sources that aren’t calculated in form”
“I’d stop right here”*

P2

*“Little things are enough to rock my world... **how long is this going to take?**”*

P1



Unstated document requirements surprised participants and drove abandonment of the application





Unstated document requirements surprised participants and drove abandonment of the application

Recommendations

- ◉ Describe qualification requirements at start
- ◉ Provide a list of required information and documents up-front, so that users can gather the information they need
- ◉ Provide an estimate of the time required to complete the application
- ◉ Provide detailed instructions and help documents
- ◉ Increase prominence and clarity of save and resume instructions



Other Findings

- Integer fields caused confusion when entering dates
- Small confusion/concerns compounded into frustration and form abandonment
- Some labeling was not clear enough, such as using “M” for Middle Initial
- Some of the error messages added additional stress or confusion
- Critical text was too small to read
- Participants had concerns over privacy when asked for tax docs
- Confusion on file format, or whether doc needed to be originals
- Some of the income fields listed line numbers matching the 1040 while others didn't and this caused confusion



Successes

Despite some critical issues, the proof-of-concept was successful in demonstrating the value of an online application to the program

- ◉ **3 of 5** participants **would use** an online tool to apply
- ◉ **2 of 5** participants would use an online tool to **pre-qualify** before submitting their application by mail
- ◉ **3 of 5** participants **would recommend** this application to friends

“It’s visually nice, I like looking at it. It’s nice to see they have an old person who doesn’t look like the youngest possible old person.”

“The web form is good, but communication needs work.”

P2

P4

“Kudos to the designer”

P5

3

Retrospective

Lessons & Reflections



Lessons for Next Time

Were we to repeat this study, here is what we would do differently:

- Work with the Assessors office to recruit two groups of participants: current exemption enrollees, and eligible seniors that are not enrolled
- Improve the post-task questions, the easy-to-difficult scale may have seemed too judgemental
- Add a post-session card-sorting of screens to assess order preference
- Provide moderator tools to help participants focus on their own subjective experience
- Maintain tighter, better documented procedures for note-taking



Closing Thoughts: Assumptions vs Reality

Our participants surprised us in multiple ways, reinforcing the importance of awareness of our own assumptions and biases

What we thought

- Seniors primarily access the internet via desktop and they have access to broadband internet access
- Seniors are not experienced with web forms and web applications
- Seniors will need additional assistance with income forms

What we observed

- Most participants used phones for day-to-day access, via cellular networks
- A couple of our participants were very family with tech, but overall were familiar with this kind of web application
- Some participants were very well informed about income tax forms



Thanks!

Any **questions?**





Appendix

Additional Details



Testing Environment & Procedures

Each session was conducted at a teammate's home, using a provided laptop, and seated at a desk to emulate an in-home user session. A moderator and note-taker were present and seated to either side of the participant.

Observers were present in an adjacent room, and were able to view the session via Zoom screen sharing. The participant was introduced to everyone conducting the study and was aware of the physical set-up of the session.



Participants tested the web form individually, each performing six tasks. They were supplied information to input into the application to avoid the need to supply their own sensitive tax information. To make the best use of time, all information supplied was qualifying information, allowing participants to successfully complete the application. Non-qualifying paths were tested heuristically, or derived from the results of the qualifying path.

Each participant was asked to answer a pre-study questionnaire, followed by testing the proof-of-concept on a laptop. Data was collected about participant performance (error and success rates on each task, and notes for complications such as confusion or system errors). Participants were instructed to use a Think Aloud Protocol. After each task, the same three post-task questions were asked, to gauge changes in experience or perception through the tasks in the application. Participants filled out a post-session survey and provided answers to moderator follow-up questions.*

** Participant 1 followed a pilot protocol and their post-session survey was discarded as incompatible with the other sessions*



Participant Profiles



P1



P2



P3



P4






P5

Age	61	59	66	77	63
Occupation	Former restaurant owner	IT Administrator for NW non-profit	Maintenance Supervisor	Retired Clinical Nutritionist	Business Analyst (aerospace & travel)
Web Access	Smart phone	Smart phone	Laptop	Desktop, no device	Device, Library
Web usage	Email, videos (YouTube), search	Email, research, shopping, banking	Email, shopping, work research	Online banking and bill pay	Buys everything, social media, TV
Tax Preparation	Prepares own taxes	Files online, uses multiple tax prep applications	Uses a tax prep service, formerly self-filed	Prepares taxes and mails paper copies	Hired a tax pro, previously self-filed for 15 years



Severity Ratings

Severity Rating	Meaning
Critical 	Participants were unable to complete a critical task or were able to complete a critical task they were not eligible to complete
Serious 	Participants were able to eventually complete tasks, but with complications or frustrations that had to be overcome.
Minor 	Participants were able to complete tasks, but with a minor nuisance or delay



Summary of Collected Data

	P1				P2				P3				P4				P5				P1	P2	P3	P4	P5
	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	SCORE				
Task 1: Getting to Know You screen																					SCORE				
Field: first name	1				1				1	1	1		1				1				1	1	3	1	1
Field: middle initial			1	1	1				1	1	1		1				1	1			3	1	3	1	2
Field: last name	1				1				1				1				1				1	1	1	1	1
Field: email address			1	1	1				1				1	1			1				3	1	1	2	1
Button: continue	1				1				1				1				1				1	1	1	1	1
Task 2: Enter Your Property Address screen																					SCORE				
Text: Qualification information					1				1				1				1				0	1	1	1	1
Progress bar					1								1								0	1	0	1	0
Field: parcel number	1	1			1	1				1		1	1				1	1			2	2	3	1	2
Field: purchased month/day/year	1		1		1				1	1	1		1	1			1				2	1	3	2	1
Field: amount	1				1				1				1				1				1	1	1	1	1
Field: trust toggle	1				1	1			1				1								1	2	1	1	0
Link: find on map	1				1					1		1	1				1				1	1	3	1	1
Link: recorder's office																					0	0	0	0	0
Task 3: Let's See if You Qualify																					SCORE				
Field: birthday month/day/year	1		1		1				1		1		1	1			1				2	1	2	2	1
Radio buttons:: marital status	1				1				1	1			1				1				1	1	2	1	1
Optional: Tell us about your spouse					1				1				1	1			1				0	1	1	2	1
Field: name, first / m.i. / last					1				1				1				1				0	1	1	1	1
Field: birthday month/day/year					1				1				1				1				0	1	1	1	1



Summary of Collected Data

	P1				P2				P3				P4				P5				P1	P2	P3	P4	P5				
Task 4: Let's Check Your Income Screen	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	SCORE				
Selection: tax form	1				1				1				1				1				1				1	1	1	1	1
Text: compliance information						1	1		1								1								0	3	1	0	1
Button: continue (to next screen)	1	1			1				1				1	1			1								2	1	1	2	1
Button: enter income start	1	1			1				1				1	1			1								2	1	1	2	1
Fields: income fields (multiple)	1				1	1			1				1	1			1	1							1	2	1	2	2
Button: enter deductions start	1				1	1							1				1								1	2	0	1	1
Fields: deduction fields (multiple)	1				1								1				1								1	1	0	1	1
Button: continue (to complete task)	1				1				1				1	1			1								1	1	1	2	1
Task 5: Required documentation screen	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	SCORE				
Text: Document preparation		1		1	1	1				1		1		1		1		1		1		1		1	3	2	3	3	3
Button: print this list					1	1																			0	2	0	0	0
Button: email this list																									0	0	0	0	0
Field or document: drivers license	1				1	1			1	1			1	1			1	1							1	2	3	2	2
Document: IRS return			1	1	1	1			1	1				1	1		1	1							3	3	3	3	3
Document: SS income statement			1	1	1	1			1	1				1	1		1	1							3	3	3	3	3
Screen: incomplete document submission	1	1			1				1	1									1	1					2	1	3	1	3
Task 6: "Almost There" screen	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	✓	?	!	X	SCORE				
Button: view my form					1												1	1							0	1	0	0	2
Button: document list	1	1			1	1							1				1	1							2	2	0	1	2
Button: submit form	1	1			1	1			1				1	1			1	1							2	2	1	3	2
Text: Suspend / resume process		1		1	1	1			1	1			1	1					1	1					3	2	3	3	3

✓	Success
?	Issues of understanding or awareness
!	Issues of capability or system error
X	Failure

0	Not applicable
1	Success, no issues
2	Success, with complications
3	Failure or abandonment



Summary of Collected Data

	P1	P2	P3	P4	P5	P1	P2	P3	P4	P5
At this stage in the application, do you know if you are qualified for the exemption?						SCORE				
Task 1: Getting to Know You screen	0	0	0	0	0	0	0	0	0	0
Task 2: Enter Your Property Address screen	0	0	0	0	0	0	0	0	0	0
Task 3: Let's See if You Qualify	0	0	0	0	0	0	0	0	0	0
Task 4: Let's Check Your Income Screen	0	0	0	0	0	0	0	0	0	0
Task 5: Required documentation screen	0	0	0	0	0	0	0	0	0	0
Task 6: "Almost There" screen	0	0	0	0	0	0	0	0	0	0

YES, I know
 NO, I do not know

	P1	P2	P3	P4	P5	P1	P2	P3	P4	P5
On a scale of 1 to 5, where 1 is difficult and 5 is easy, how easy was this section to complete?						SCORE				
Task 1: Getting to Know You screen	3	5	5	4	5	3	5	5	4	5
Task 2: Enter Your Property Address screen	3	5	5	5	3	3	5	5	5	3
Task 3: Let's See if You Qualify	4	5	5	5	5	4	5	5	5	5
Task 4: Let's Check Your Income Screen	4	3	5	4	3	4	3	5	4	3
Task 5: Required documentation screen	1	1	1	1	-5	1	1	1	1	-5
Task 6: "Almost There" screen	3	1	1	5	2	3	1	1	5	2

5 EASY
 4
 3
 2
 1 DIFFICULT

Findings	P1	P2	P3	P4	P5
4 of 5 participants would not have had digital documentation					
3 of 5 participants could not scan documents for uploading					
3 of 5 participants would not upload documents					
2 of 5 participants were comfortable with photographing documents					
5 of 5 participants were unable to determine if they qualify					
3 of 5 participants said they would have abandoned the application before reaching the documentation section					
2 of 5 participants were unpleasantly surprised by requests for sensitive information while completing the application					
4 of 5 participants requested that information requirements be provided at the start					

	P1	P2	P3	P4	P5	P1	P2	P3	P4	P5
Net Promoter Score	RESPONSE					SCORE				
How likely is it that you would recommend this website to a friend or colleague?	10	5	8	0		10	5	8	0	
Post-Session Survey	RESPONSE					SCORE				
I would prefer using this website over a paper form to submit my application.	5	3	4	1		5	3	4	1	
I found the website unnecessarily complex.	3	2	1	5		3	4	5	1	
I thought the website was easy to use.	4	2	4	3		4	2	4	3	
I think that I would need the support of a technical person to be able to use this website.	1	4	2	1		5	2	4	5	
I would imagine that most people would learn to use this website very quickly.	2	5	4	2		2	5	4	2	
I found the website very cumbersome to use.	1	4	2	2		5	2	4	4	
I felt very confident using the website.	2	2	4	1		2	2	4	1	
I needed to learn a lot of things before I could get going with this website.	2	4	2	1		4	2	4	5	
I could clearly tell what step I was in in the process of filling out the form.	5	2	5	5		5	2	5	5	

5 Strongly positive
 4 Positive
 3 Neutral
 2 Negative
 1 Strongly negative