

Tracked

Quantitative Research Presentation

Project Overview

TrackEd is a mobile platform that assists professionals to monitor, track and submit their continuing education credits.

Next step for the company is to build a large user base of nursing professionals.

Team TrackEd began with an initial research approach to help the team and the client develop the research question.



Research Question

Management Decision Problem- How do we build a large user base of nursing professionals on TrackEd?

Marketing Research Problem- What would motivate a licensed nurse to switch from their current method of tracking their CE credits to using TrackEd?

Secondary and Qualitative Research

Secondary research was mainly gathering statistics about the nursing professionals in North Carolina

Number of licensed nursing professionals in NC: +150K

Required CEU per year: Depends on certification

Qualitative research: Exploratory, direct, in-depth interviews with nurses having active nursing licenses

Convenience sampling

Interviewed 8 licensed nurses (7 female, 1 male)

Key Qualitative Insights

- Tracking credits is a hit and miss task
- Binders and Folders still used often
- Certainty is a plus
- Mixed feelings about CE tracking experience
- Lack of time to track receipts was mentioned

Quantitative Analysis

Survey + Data Selection

- Decided on online survey
- Registered Nurses in the NC Board Database (102k)
 - Email
 - North Carolina addresses
- Selected a random sample of 2k participants out of 102k

Response Rate using Qualtrics

- Total survey recipients: 2000
- Survey started: 181
- Survey completed: 147
- Response rate: $147/2000 = 7.4\%$
- Hit our goal for average response time: 7 minutes

Statistical Analysis Approach

Descriptive statistics:

Frequency (histograms)

Mean, mode, quantiles

Chi-Square Goodness of Fit test

Correlation

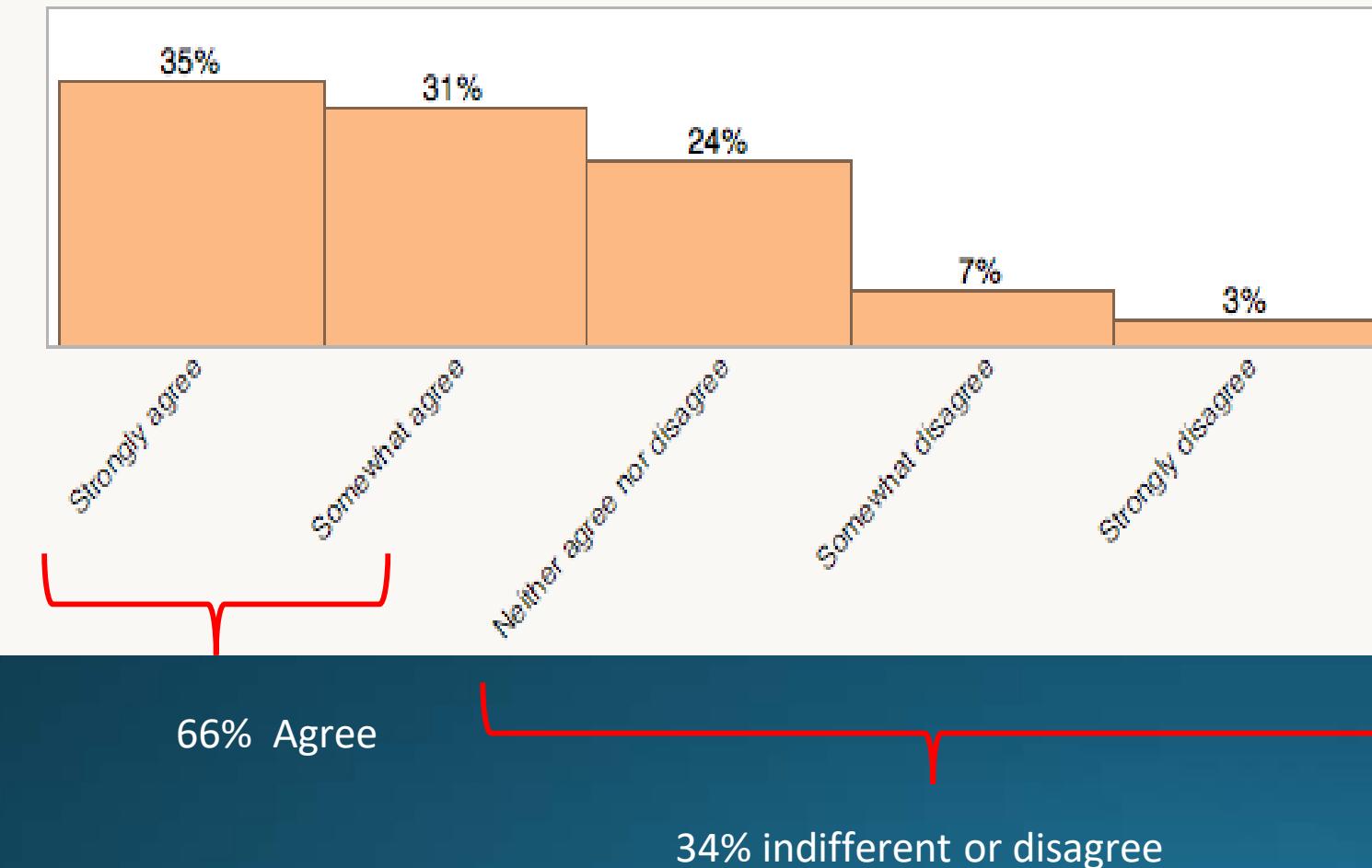
Two-sample T-test

ANOVA / Regression



Results and Discussion

Q8: I would like to improve my current process of tracking my CE hours



▼ Frequencies

Level	Count	%
Strongly agree	59	0.34706
Somewhat agree	53	0.31176
Neither agree nor disagree	41	0.24118
Somewhat disagree	12	0.07059
Strongly disagree	5	0.02941
Total	170	1.00000
N Missing	11	
5 Levels		

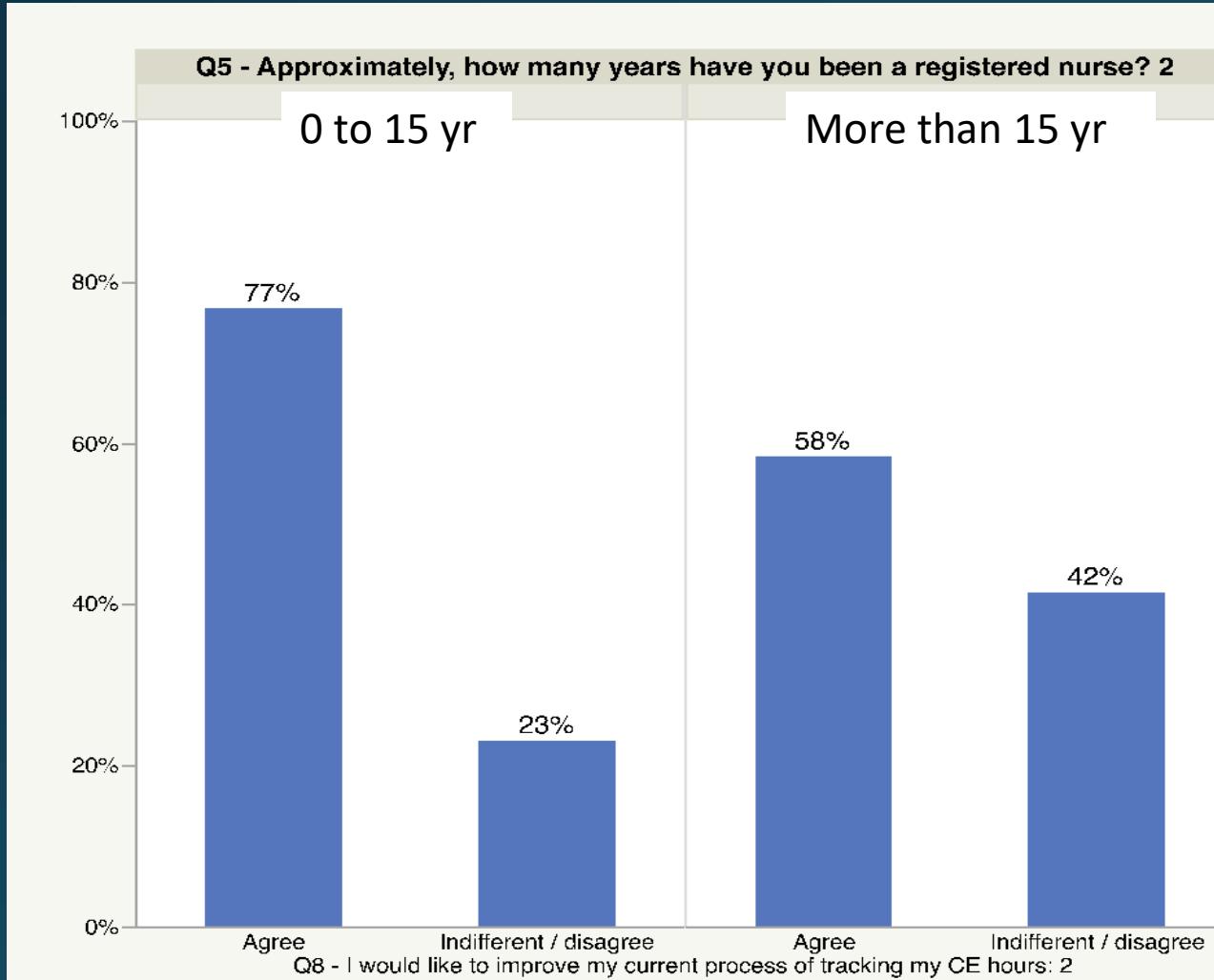
Demographic data

- Years of Experience
- Gender
- Age
- Income

Desire to improve CE tracking method vs. Demographics

- Desire to improve
 - Two groups: “agree” and “indifferent / disagree”
 - ✓ Years of Experience (2 groups)
 - ✓ Gender (2 groups)
 - ✓ Age (5 groups)
 - ✓ Income (2 groups)

Registered nurses with 0-15 years of experience are more eager to improve their CE tracking process than nurses with more than 15 years of experience



Tests

N	DF	-LogLike	RSquare (U)
170	1	3.1713692	0.0276
Test			
Likelihood Ratio		ChiSquare	6.343
Pearson		Prob>ChiSq	0.0118*
			6.172
			0.0130*

Gender (male vs. female) is not related to desire to improve current CE tracking process

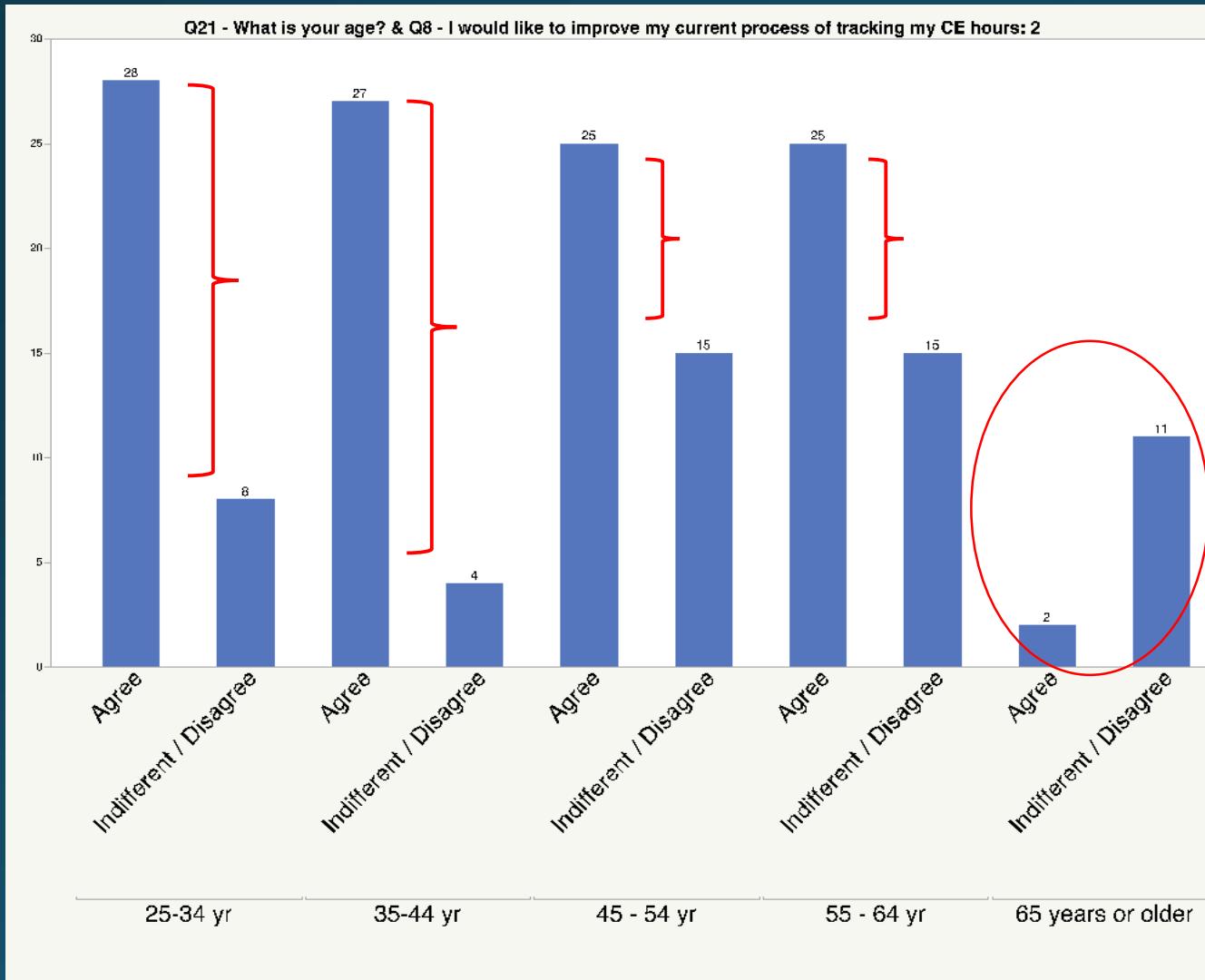
Count	Agree	Indifferent / Disagree	Total
Total %			
Female	96 60%	51 32%	147 92%
Male	11 7%	2 1%	13 8%
Total	107 67%	53 33%	160
N	DF	-LogLike	RSquare (U)
160	1	1.1353978	0.0112
Test	ChiSquare	Prob>ChiSq	
Likelihood Ratio	2.271	0.1318	
Pearson	2.010	0.1562	

Sample size:

Males = 13

Females = 147

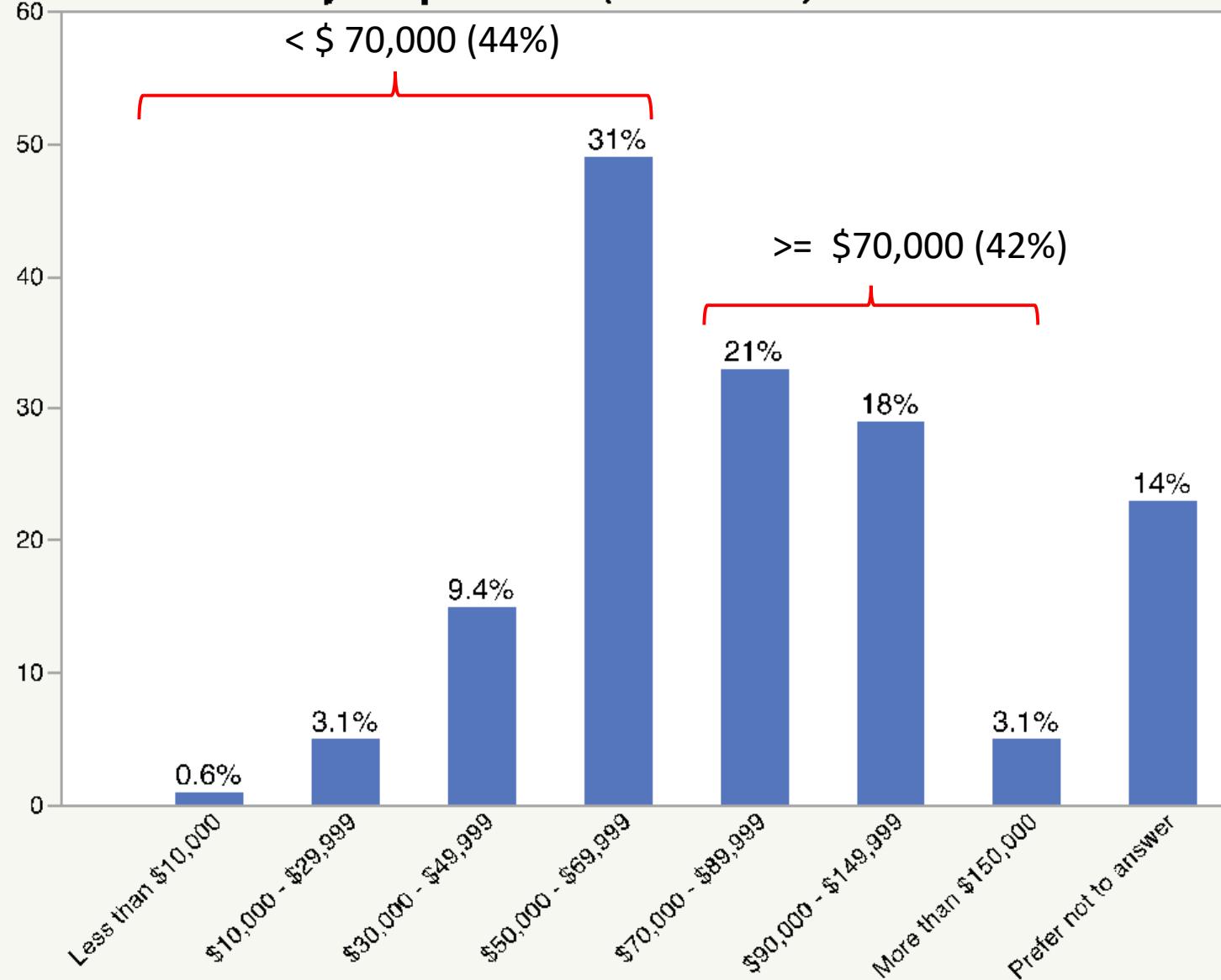
Younger (25-44 y/o) nurses would like to improve their current CE tracking method.



▼ Tests

N	DF	-LogLike	RSquare (U)
160	4	12.113142	0.1192
Test			
Likelihood Ratio		ChiSquare	Prob>ChiSq
		24.226	<.0001*
Pearson		23.904	<.0001*

Q22 - What is your personal (individual) annual income?



▼ Frequencies

Level	Count	Prob
Less than \$10,000	1	0.00625
\$10,000 - \$29,999	5	0.03125
\$30,000 - \$49,999	15	0.09375
\$50,000 - \$69,999	49	0.30625
\$70,000 - \$89,999	33	0.20625
\$90,000 - \$149,999	29	0.18125
More than \$150,000	5	0.03125
Prefer not to answer	23	0.14375
Total	160	1.00000
N Missing	21	
Levels	8	

Income level is not related to desire to improve current CE tracking method

Count	Agree	Indifferent / Disagree	Total
Total %			
< \$70,000	43 31%	27 20%	70 51%
>= \$70,000	49 36%	18 13%	67 49%
Total	92 67%	45 33%	137

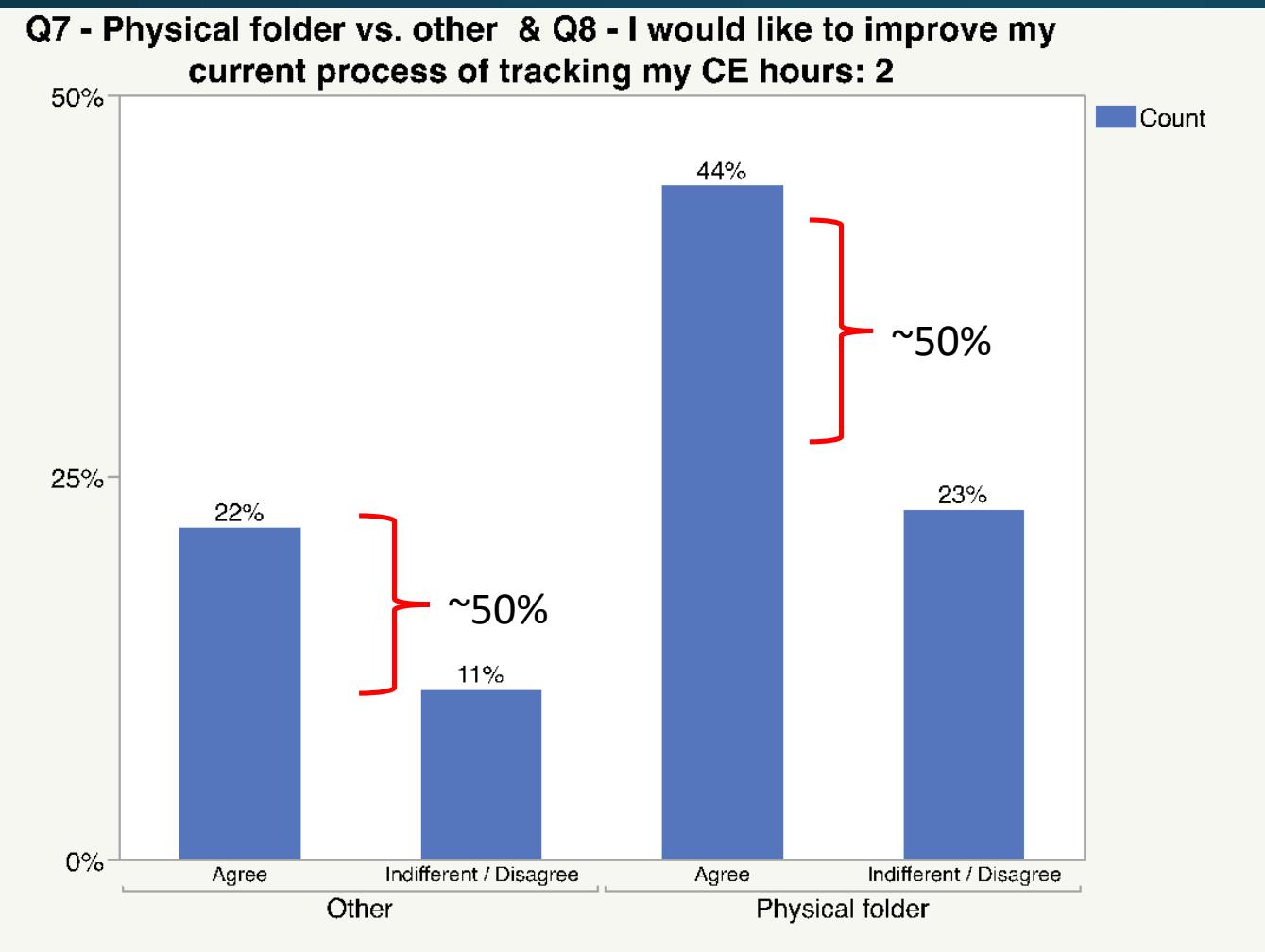
N	DF	-LogLike	RSquare (U)
137	1	1.0690399	0.0123

Test	ChiSquare	Prob>ChiSq
Likelihood Ratio	2.138	0.1437
Pearson	2.127	0.1448

How do you currently keep track of your CE credits...?

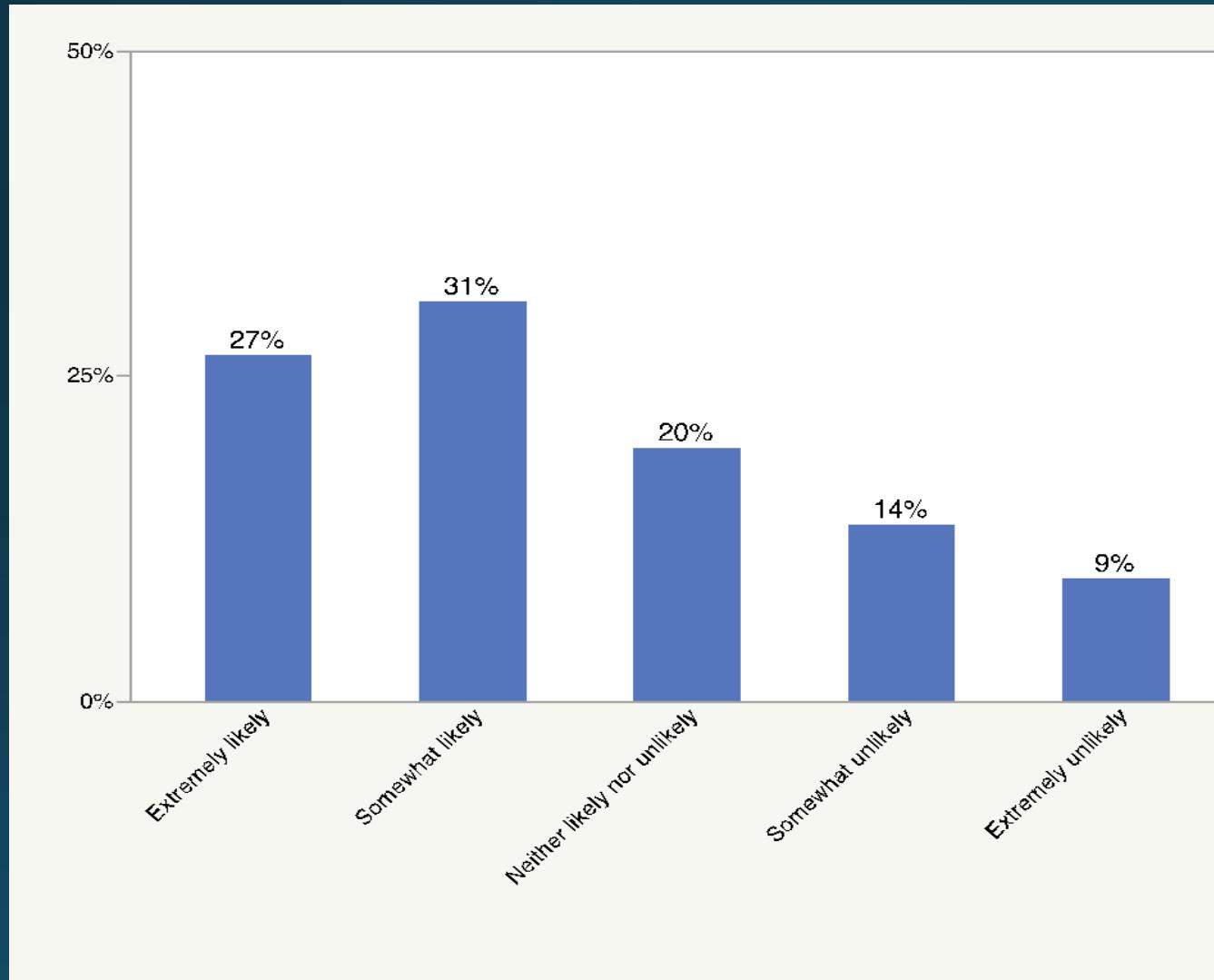
Answer	%	Count
File in a physical folder or binder	67.24%	117
File electronically (e.g. excel spreadsheet, scanned docs, online, folder etc.)	28.16%	49
My employer provides a service or software for tracking CE hours	25.29%	44
My professional association of which I am a member tracks credits for me	17.24%	30
NetCe website (https://www.netce.com)	2.30%	4
www.nurse.com	5.75%	10
www.continuingeducation.net	0.57%	1
Other (please enter)	9.20%	16
Total	100%	174

There is no relationship between tracking credits in physical folder and desire to improve CE tracking system



Tests				
N	DF	-LogLike	RSquare (U)	
170	1	0.00066439	0.0000	
Test				
Likelihood Ratio		ChiSquare	Prob>ChiSq	
		0.001	0.9709	
Pearson			0.001	0.9709

If you know you will be audited within the next 5 years, how likely are you to change your current method of tracking CE credits...?



Fear of being audited in the next 5 years and desire for automatic tracking system are positively correlated with willingness to improve current tracking method

	Q8 - I would like to improve my current process of tracking my CE hours	Q12 – Change from current tracking method if audited in the next 5 yr	Q14 – Want automatic tracking system
Q8 - I would like to improve my current process of tracking my CE hours	1.0000	0.6064	0.6017
Q12 - Change from current tracking method if audited in the next 5 yr	0.6064	1.0000	0.5805
Q14 - Want automatic tracking system	0.6017	0.5805	1.0000

All attributes listed (i.e. ideal tracking system characteristics) were ranked “very important” and above

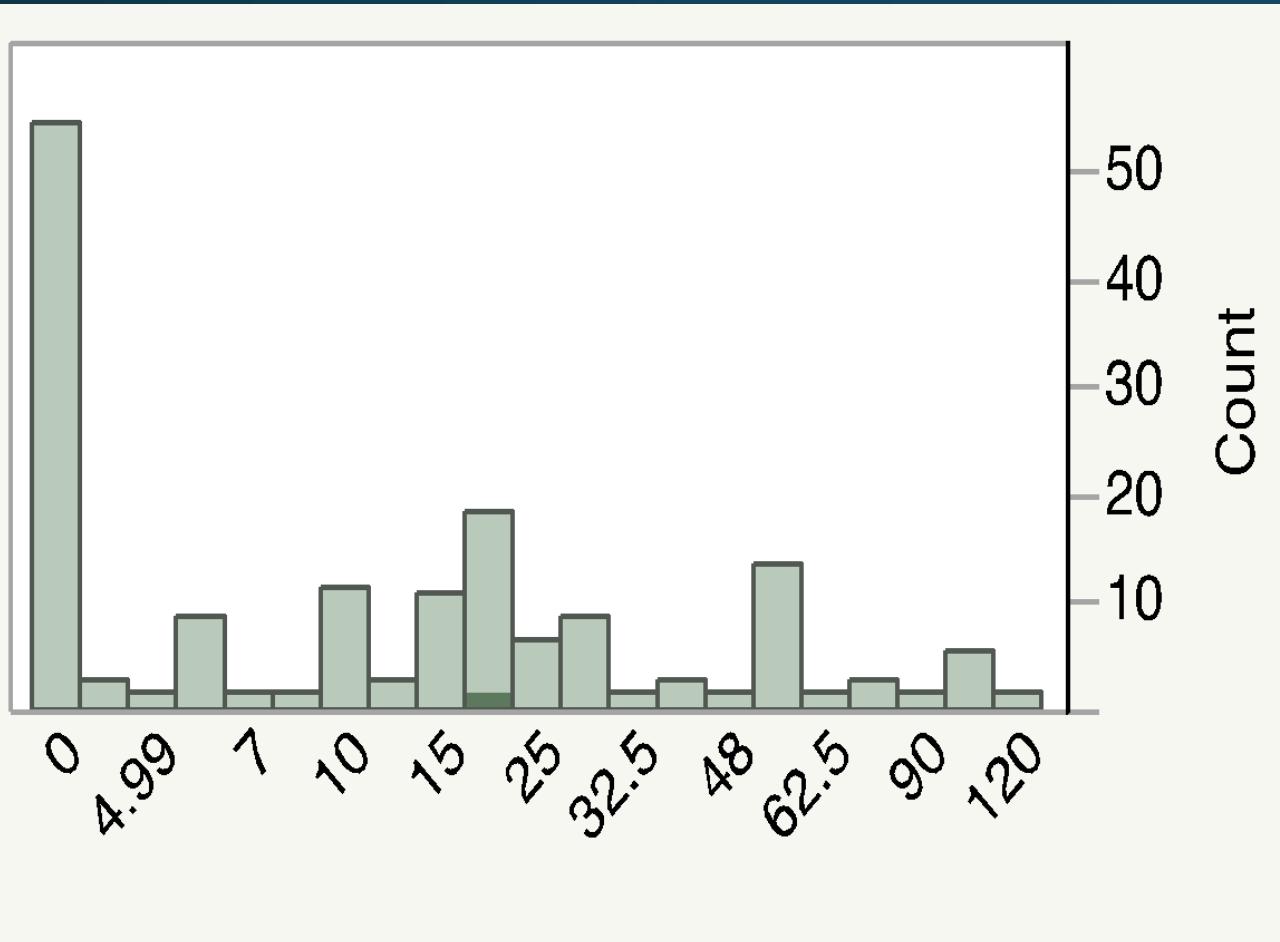
Ranking of ideal characteristics

1	Ability to easily submit proof to governing board to clear audit	1.7
2	Ability to backup all my CE hours	1.7
3	A service that keeps all your certificates and license requirements in one place	1.7
4	Ability to quickly help you renew your license	1.8
5	A service that provides me with discount and promo codes to save me money	1.9
6	A service with a universal place to store CE hours obtained from any website or provider	2
7	A service that provides a dashboard that notifies you of your renewal	2.1
8	A service that helped me find relevant CE hours for me	2.1
9	A service that is easy to use on my mobile device	2.2
10	A service that reminds you of upcoming courses in your area	2.2

Nevertheless, there were weak correlations between desire to improve current tracking method and the characteristics of “ideal TrackEd”

	Q8 - I would like to improve my current process of tracking my CE hours:
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Q15_1 - Ability to easily submit proof to governing board to clear audit	0.3529
Q15_3 - A service that helped me find relevant CE hours for me	0.3100
Q15_4 - Ability to quickly help you renew your license	0.2871
Q15_2 - A service with a universal place to store CE hours obtained from any websit...	0.3369
Q15_6 - Ability to backup all my CE hours	0.3296
Q15_7 - A service that provides me with discount and promo codes to save me money	0.0901
Q15_5 - A service that is easy to use on my mobile device	0.2238
Q15_8 - A service that provides a dashboard that notifies you of your renewal	0.2611
Q15_9 - A service that reminds you of upcoming courses in your area	0.2175
Q15_10 - A service that keeps all your certificates and license requirements in one...	0.3463

Willingness to pay per year



Mean	\$18.9
Std Dev	25.303767
Std Err Mean	2.0729653
Upper 95%	\$23.0
Mean	
Lower 95%	
Mean	\$14.8
N	149

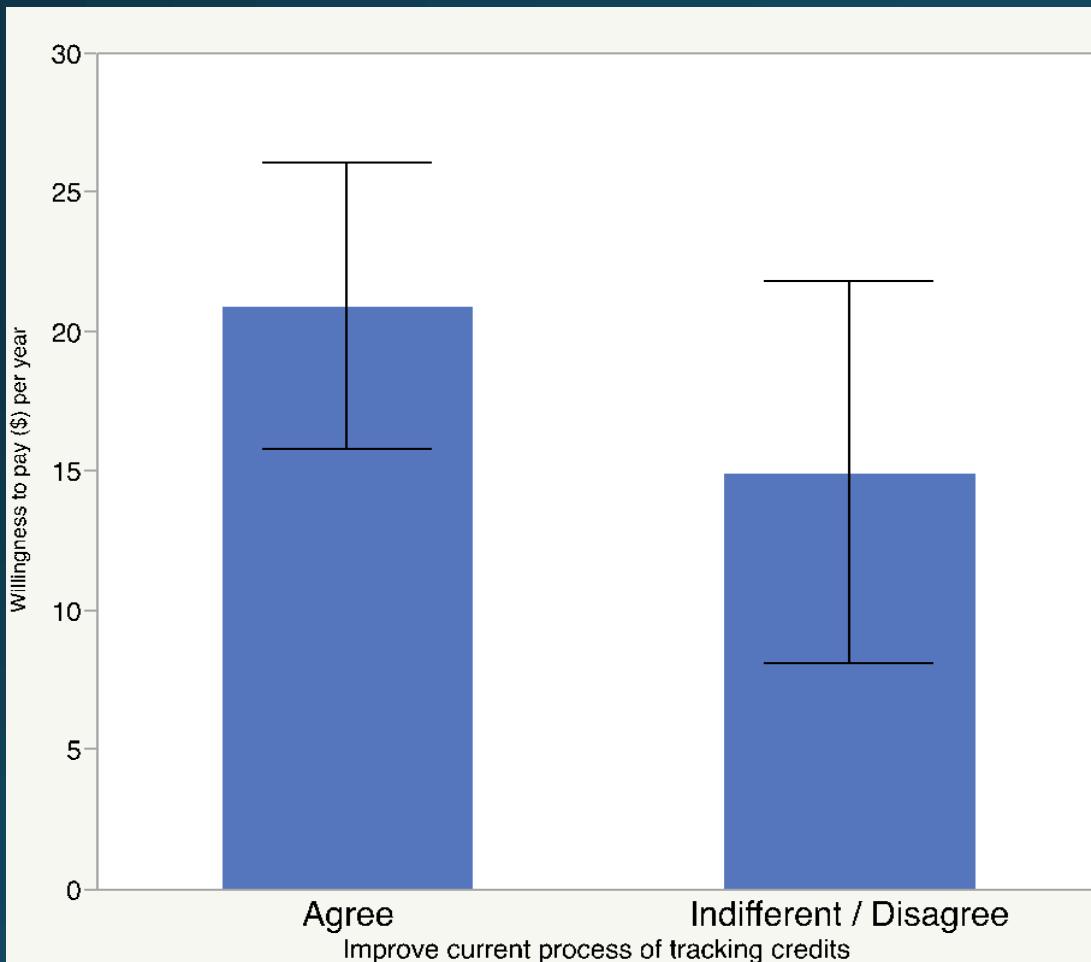
Level	Count	%
0	54	0.36242
0.99	2	0.01342
4.99	1	0.00671
5	8	0.05369
7	1	0.00671
8	1	0.00671
10	11	0.07383
12	2	0.01342
15	10	0.06711
20	18	0.12081
25	6	0.04027
30	8	0.05369
32.5	1	0.00671
35	2	0.01342
48	1	0.00671
50	13	0.08725
62.5	1	0.00671
75	2	0.01342
90	1	0.00671
100	5	0.03356
120	1	0.00671
Total	149	1.00000

Don't want to pay at all (36%)

Max. \$20 (36%)

Between \$21 and \$120 (28%)

Willingness to pay is the same (~\$20) regardless of desire to improve current CE tracking method



Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Improve method ?	1	1168.802	1168.80	1.8358	0.1775
Error	147	93592.727	636.69		
C. Total	148	94761.529			

Key Insights

Motivations to improve CE tracking method (nurse population)

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Two Main Drivers:

- Fear of being audited
- The idea of an automatic system

What about the other features of TrackEd...?

- All new features/services provided by TrackEd were ranked as very and extremely important (worth maintaining)
- There is no relationship between wanting to improve the current tracking method and the new features offered by TrackEd (think about a marketing campaign message)

Recommendations for TrackEd

Tiered pricing structure (base app: free; add-on features: \$)

People may not necessarily admit that they want to change their process, but they view a number of potential TrackEd features as “very important”. Which means TrackEd should be careful not to position their product as a “new” way of tracking CE credits and could instead highlight how it’s an automated system ...

Educate consumers about an unknown need

Utilize two main drivers (**fear of audit** and **automatic system**) for marketing and education campaigns

Focus initial marketing efforts toward younger (< 45 yrs old) or nurses with 15 or fewer years experience

Future Research / Opportunities

Large hospital systems often utilize tracking systems, and may present an opportunity for future marketing research

Focus group to test platform

Perform similar marketing research analysis to other industries