

# Crowdsourcing platforms: Mechanical Turk and CrowdFlower

# Terminology

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Requester  
(AKA You!)

# Terminology



Workers  
(AKA Crowdworkers/Turkers)



Requester  
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Workers  
(AKA Crowdworkers/Turkers)



Platform



Requester  
(AKA You!)

# Terminology

Microtasks

(AKA Human Intelligence Tasks/HITs)



Workers

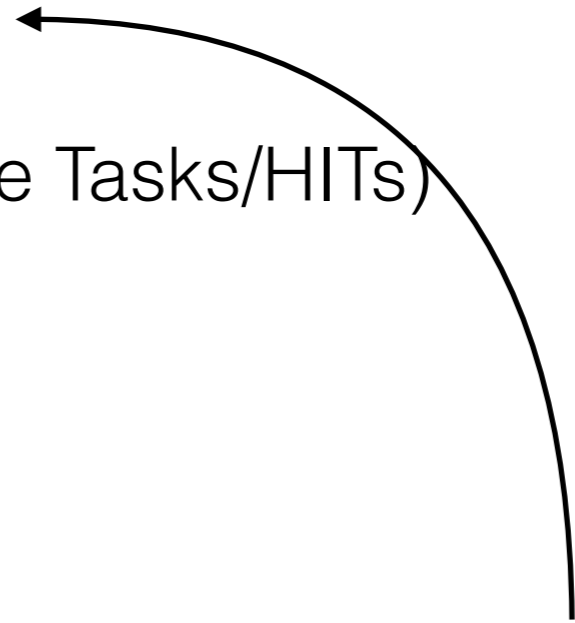
(AKA Crowdworkers/Turkers)

Platform

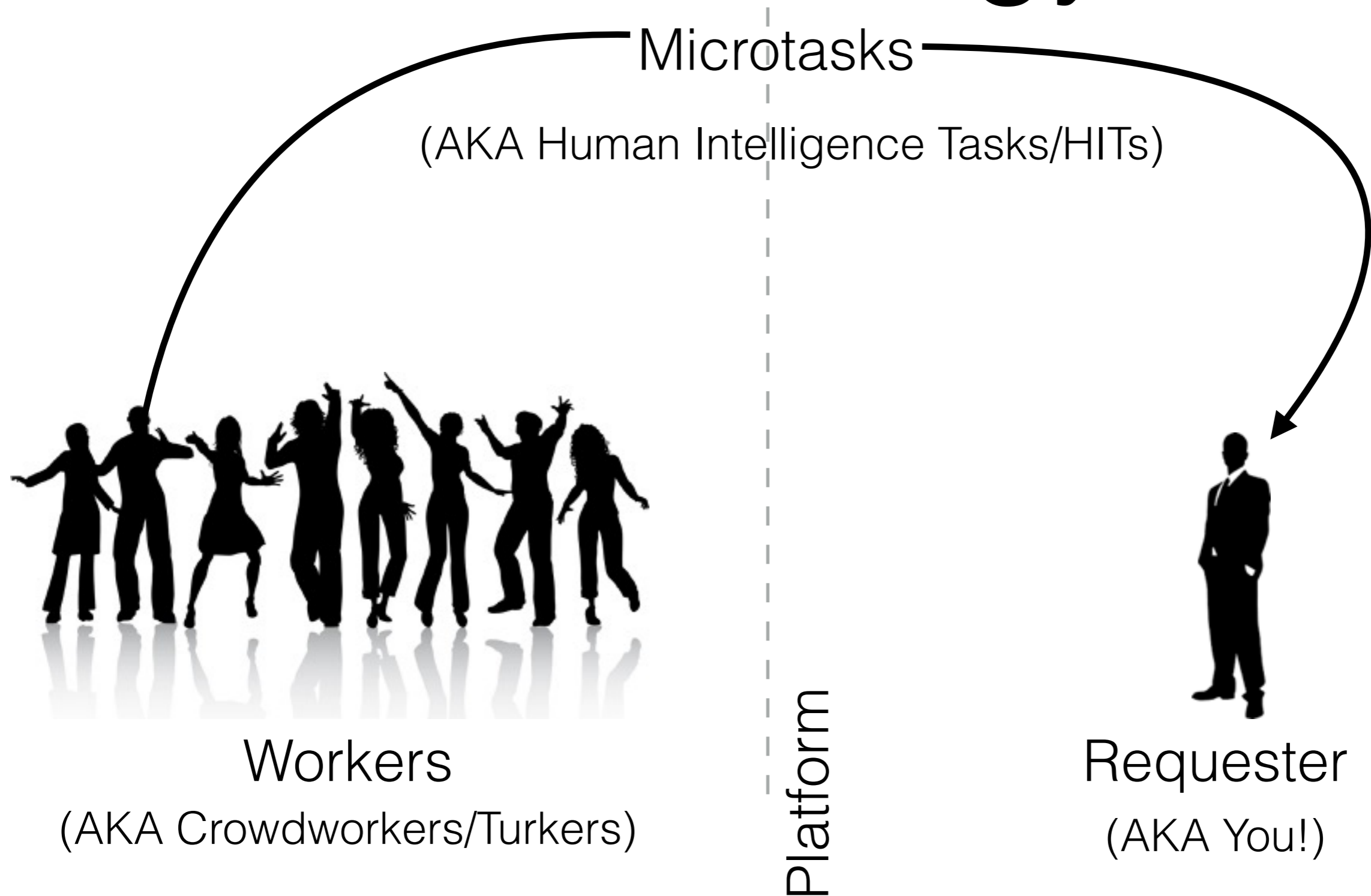


Requester

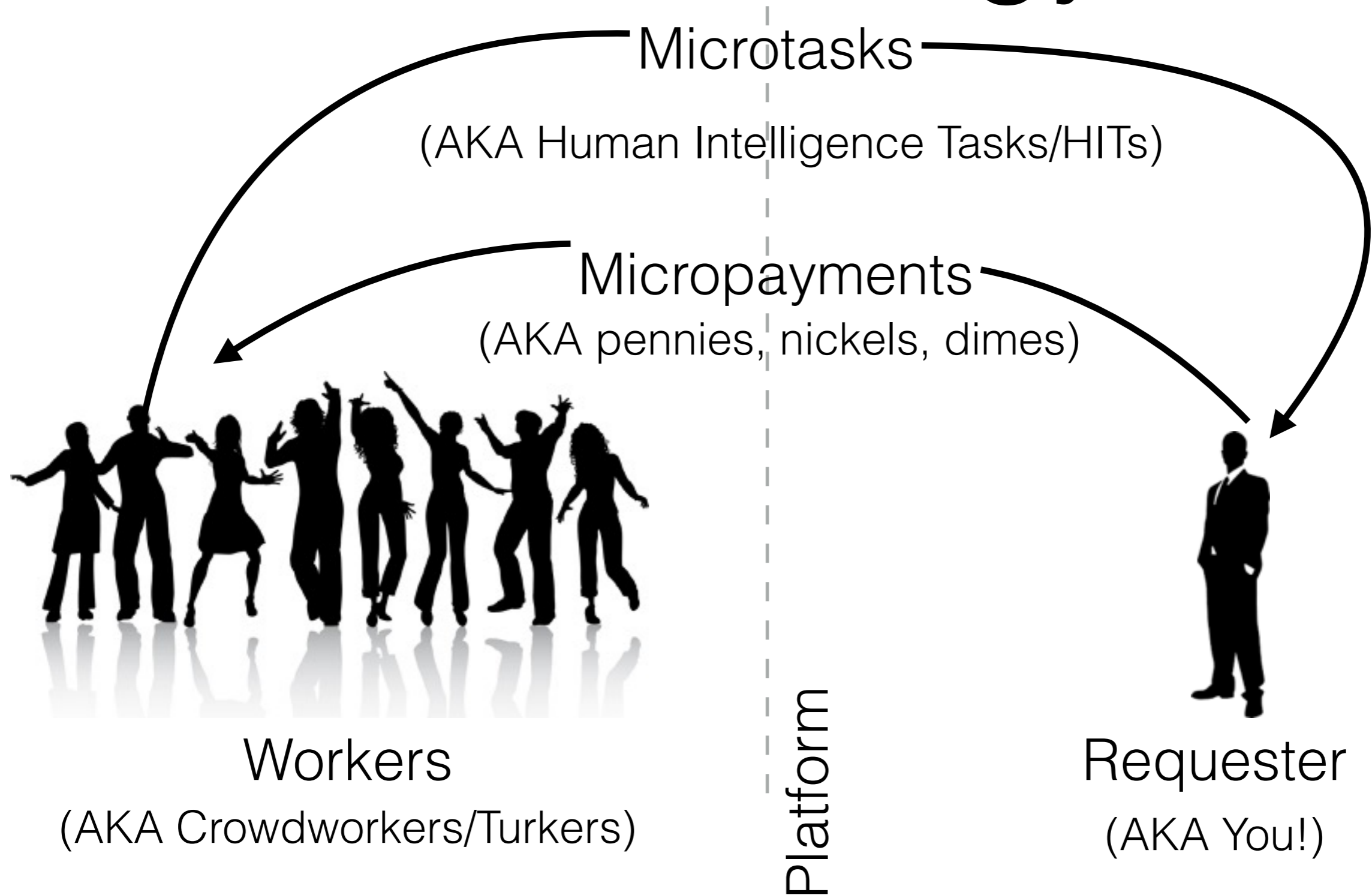
(AKA You!)



# Terminology



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Platform

# Terminology

Workers  
sign up  
directly



Platform

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Workers  
sign up  
directly



Work outsourced to  
workers on smaller  
platforms (e.g.  
gaming sites)

Platform

How big is the market?

# How big is the market?



Study from January 2009 - April 2010:

- 6,701,406 HITs total
- 165,368 HIT groups
- 9,436 requesters
- \$529,259 worth of rewards

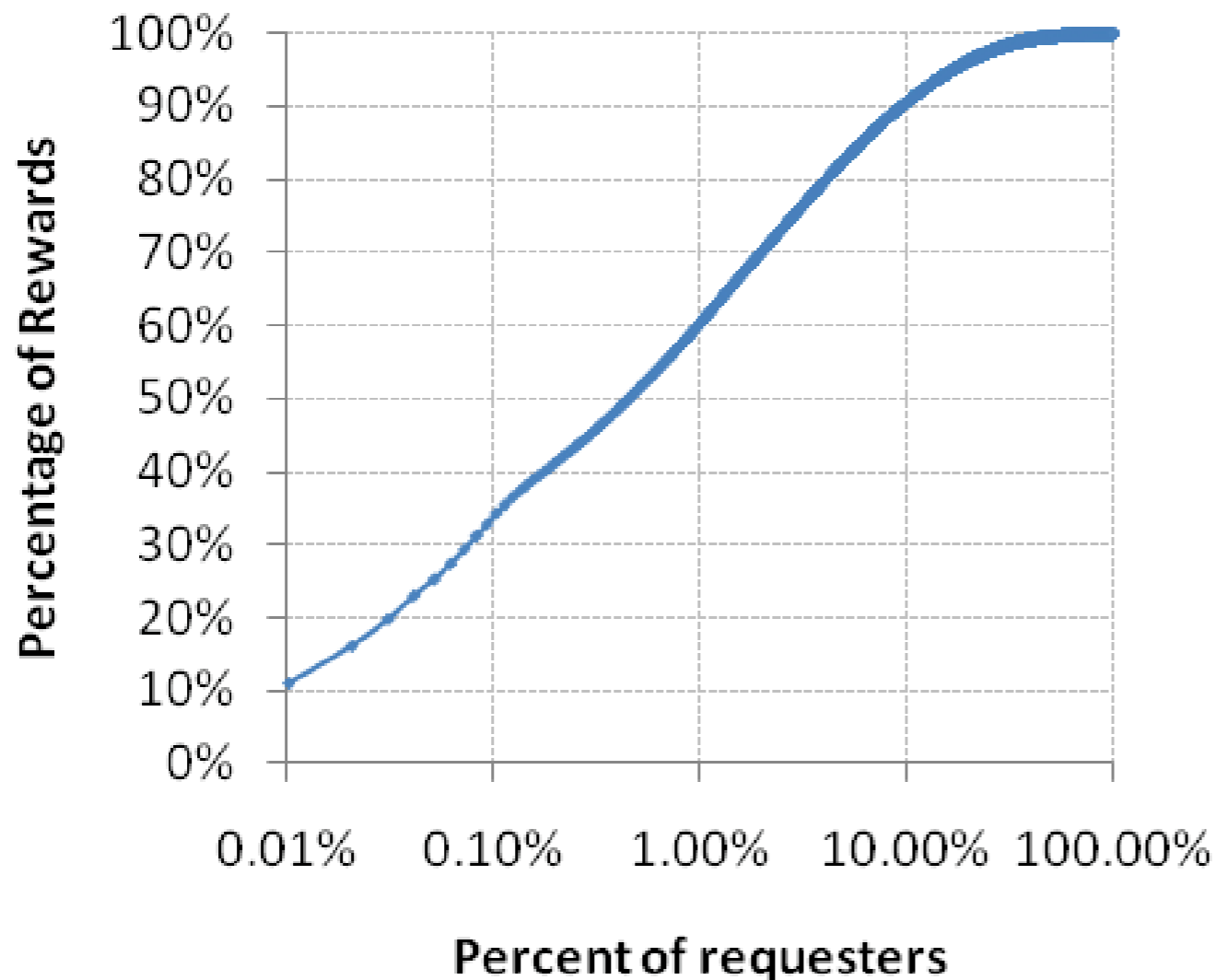
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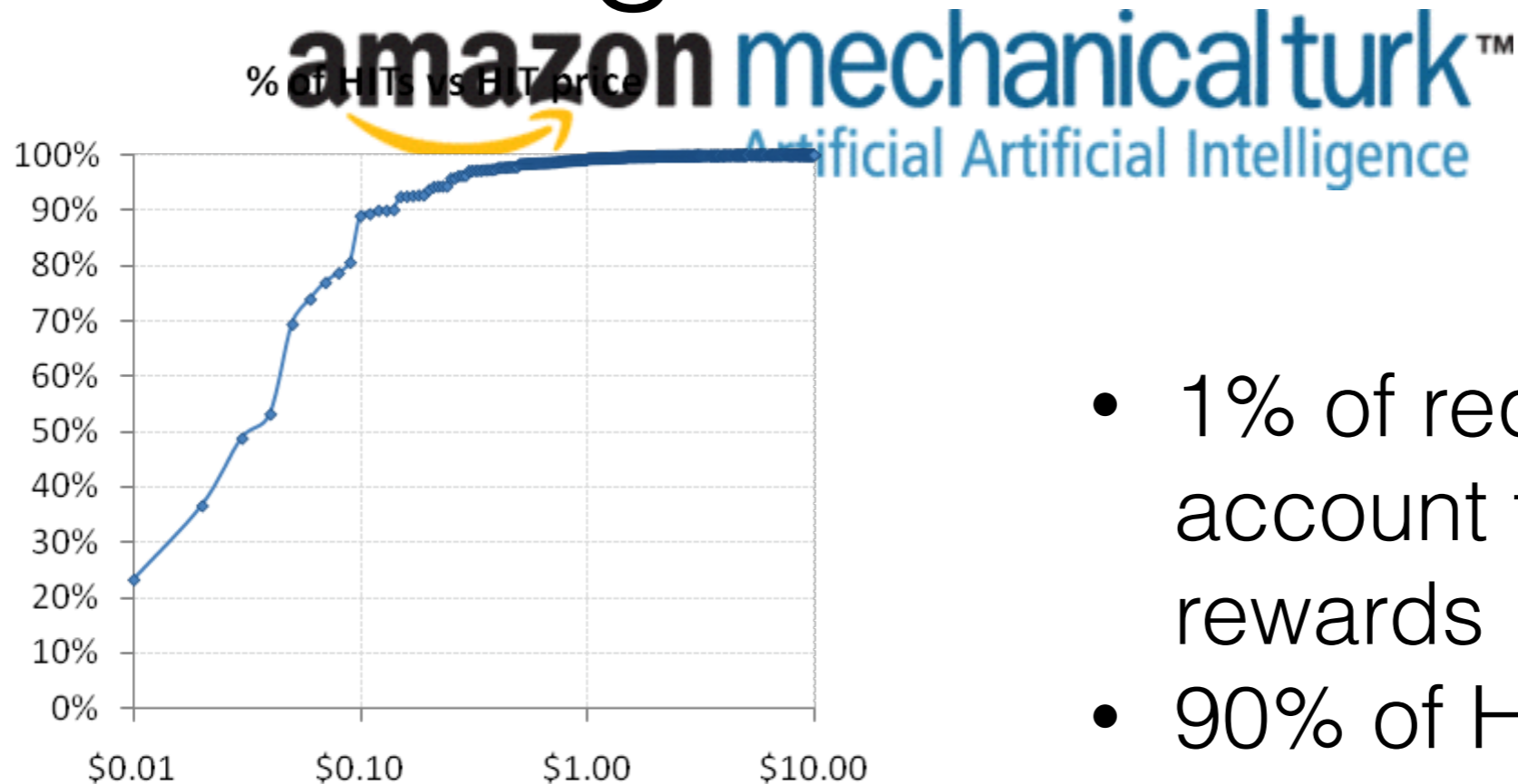


Q-Q Plot: % of rewards vs % of requesters

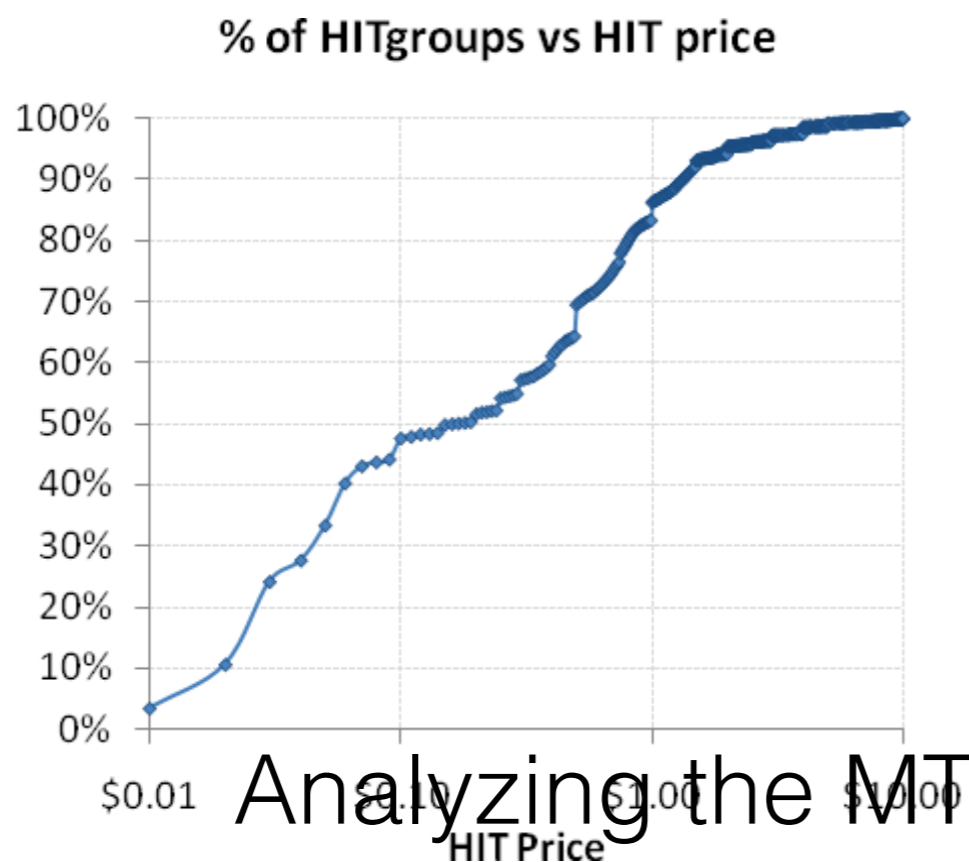


- 1% of requesters account for 60% of rewards

# How big is the market?



- 1% of requesters account for 60% of rewards
- 90% of HITs and 50% of HIT groups pay less than \$0.10



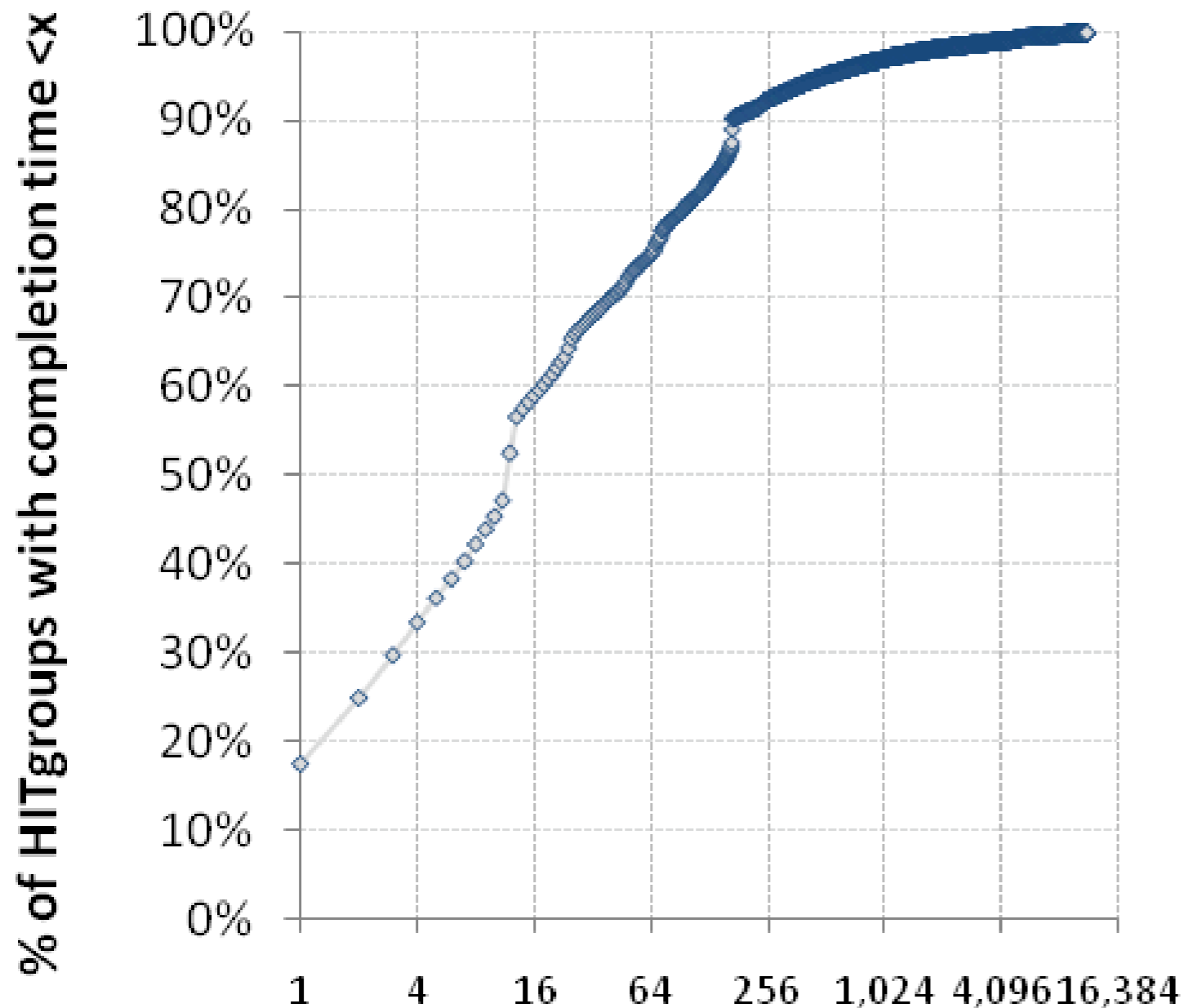
Analyzing the MTurk Marketplace. Ipeirotis (2012)



# How big is the market?



CDF of completion times for HIT Groups



- 1% of requesters account for 60% of rewards
- 90% of HITs and 50% of HIT groups pay less than \$0.10
- 60% of HIT groups are completed in less than 16 hours

Completion time for HITgroup (in hours)

Analyzing the MTurk Marketplace. Ipeirotis (2012)

# How big is the market?

**amazon** mechanicalturk™

Artificial Artificial Intelligence  
Top requesters as of May 2015

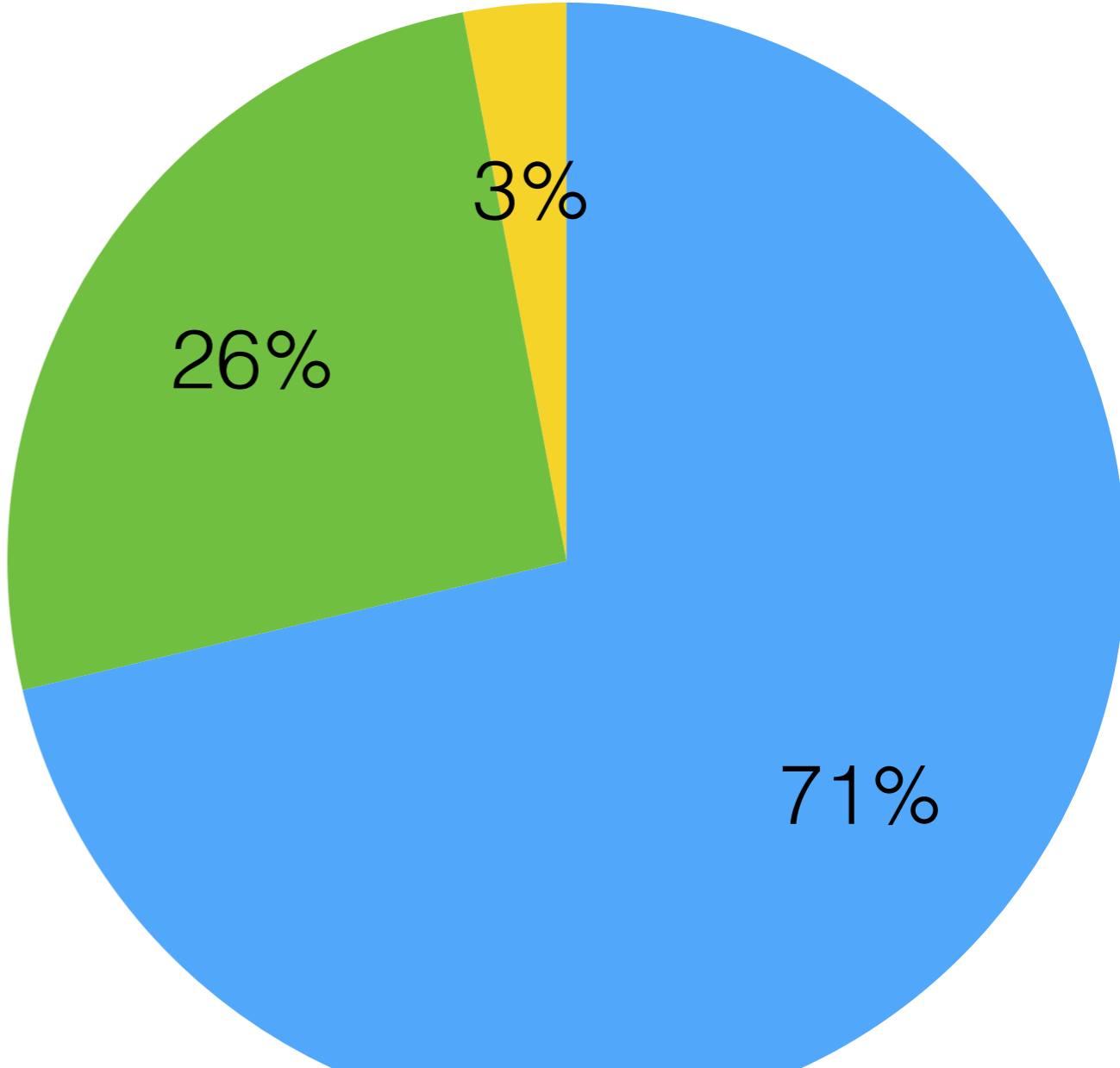
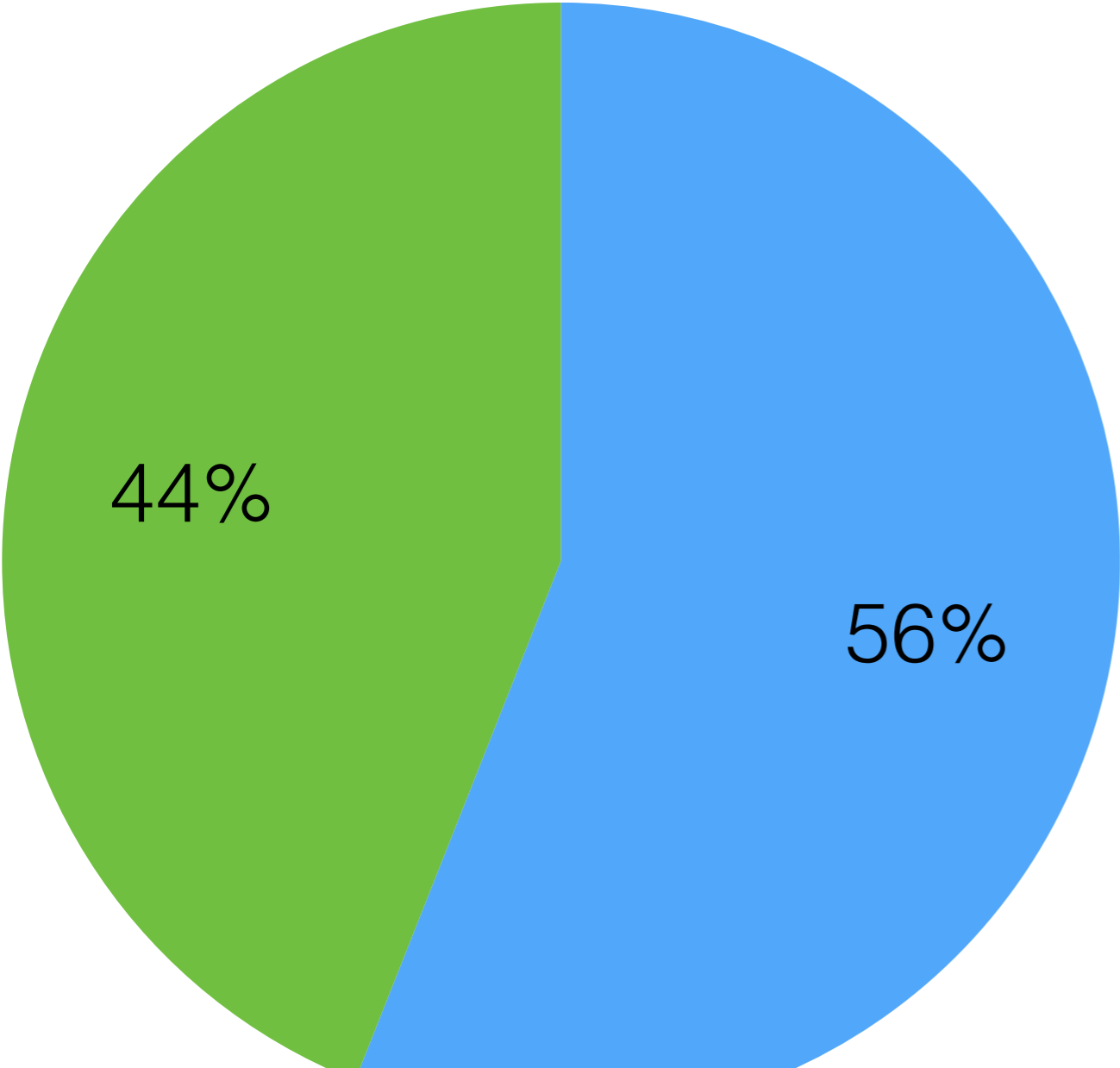
Requester name	hits	reward
Speechpad	38955	\$231,542.51
Turk Experiment	45954	\$42,361.04
CastingWords	54573	\$40,492.72
Crowdsurf Support	369396	\$27,458.61
Marketing	146549	\$19,955.85
Stanford NLP Group	118801	\$16,847.04
Jon Breilig	348387	\$15,679.60
Amazon Requester Inc - browse classification	176527	\$10,491.84
Todd Mosier	121958	\$9,329.98
Skylar Marcum	116471	\$7,944.52

<http://www.mturk-tracker.com>

# Who is doing all this work for us?

Mechanical Turk

CrowdFlower

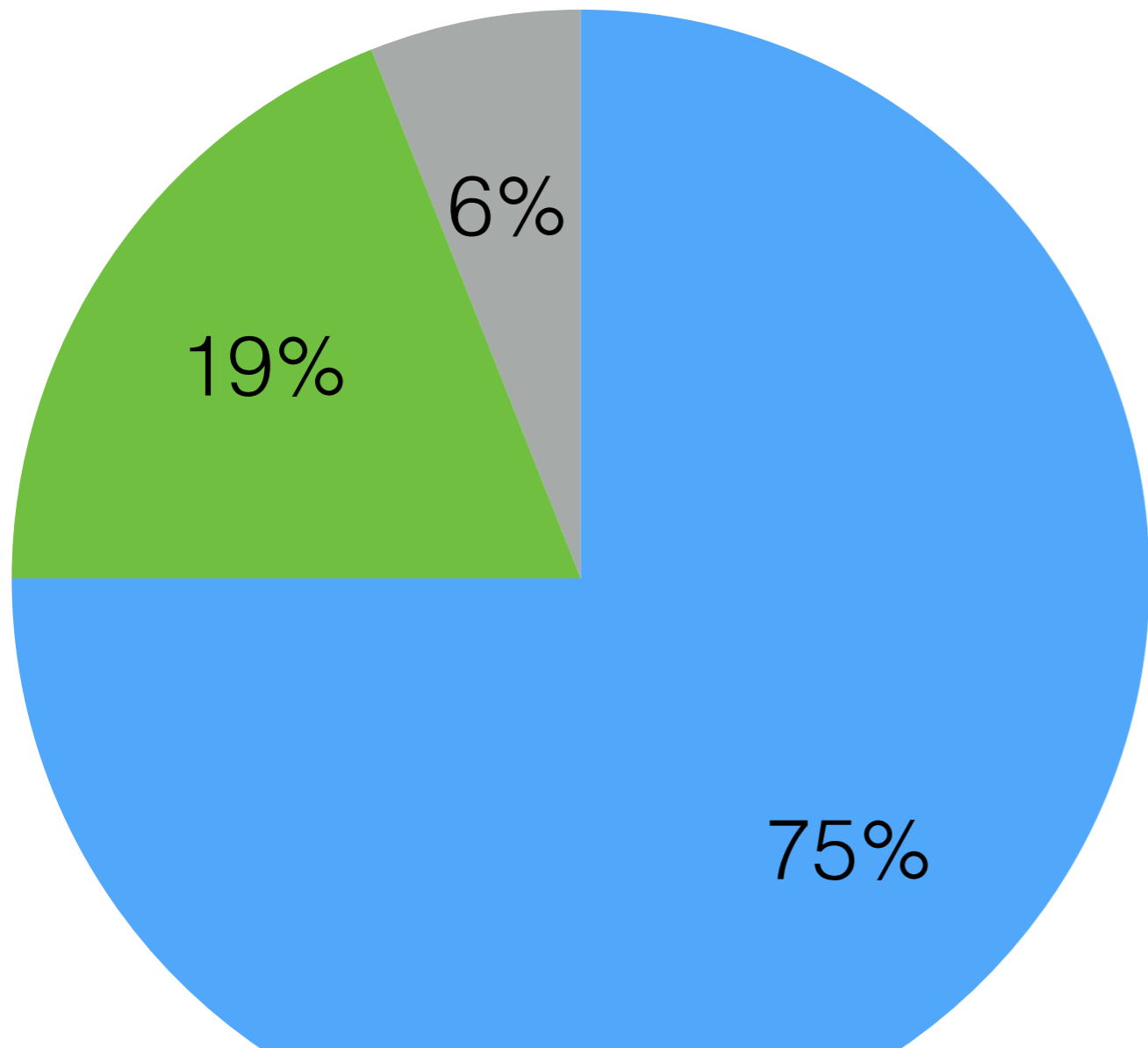


● Male    ● Female    ● Unspecified

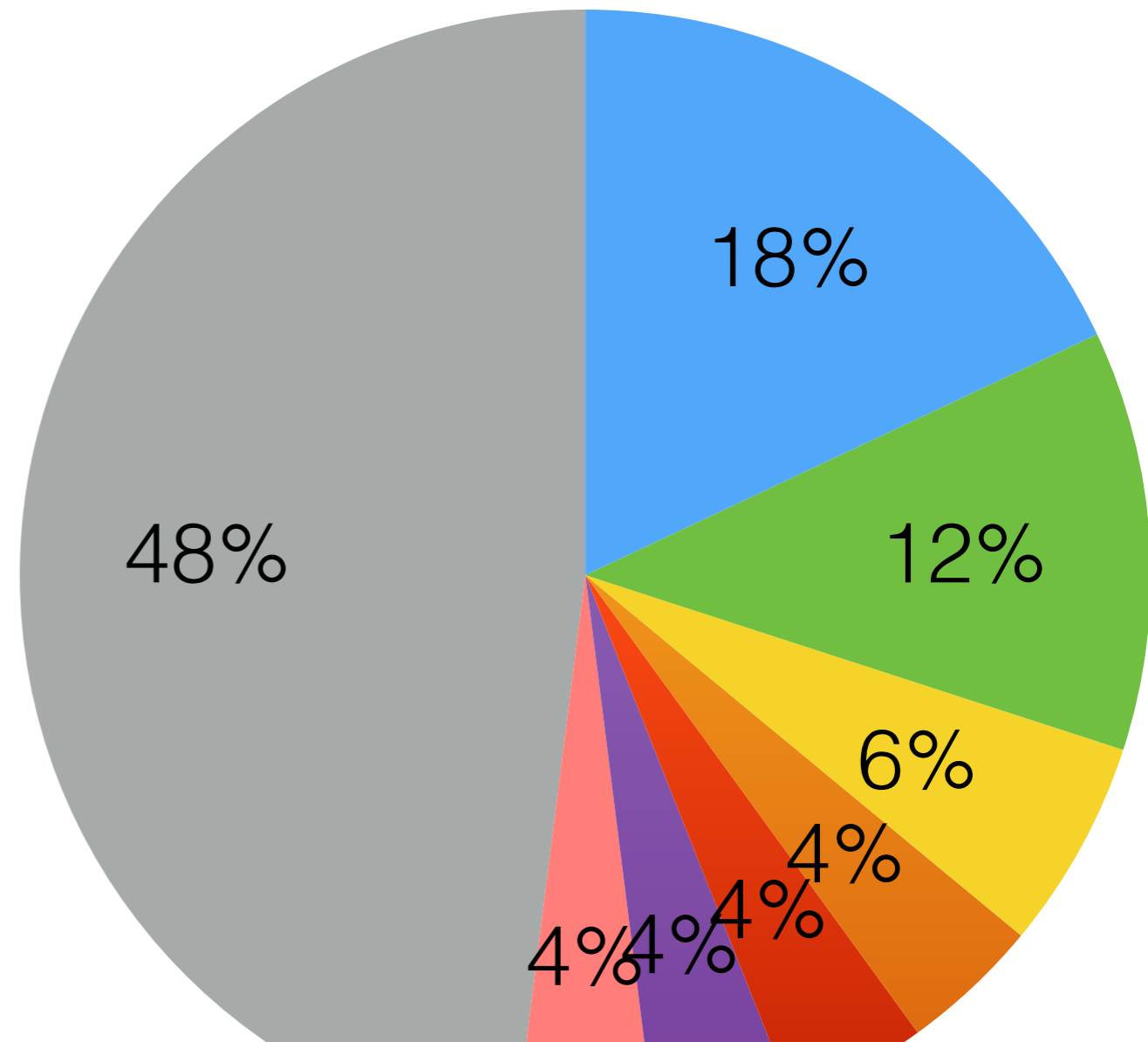
Panos Ipeirotis's site: <http://demographics.mturk-tracker.com>  
CrowdFlower blog: <http://www.crowdflower.com/blog/2014/01/demographics-of-the-largest-on-demand-workforce>

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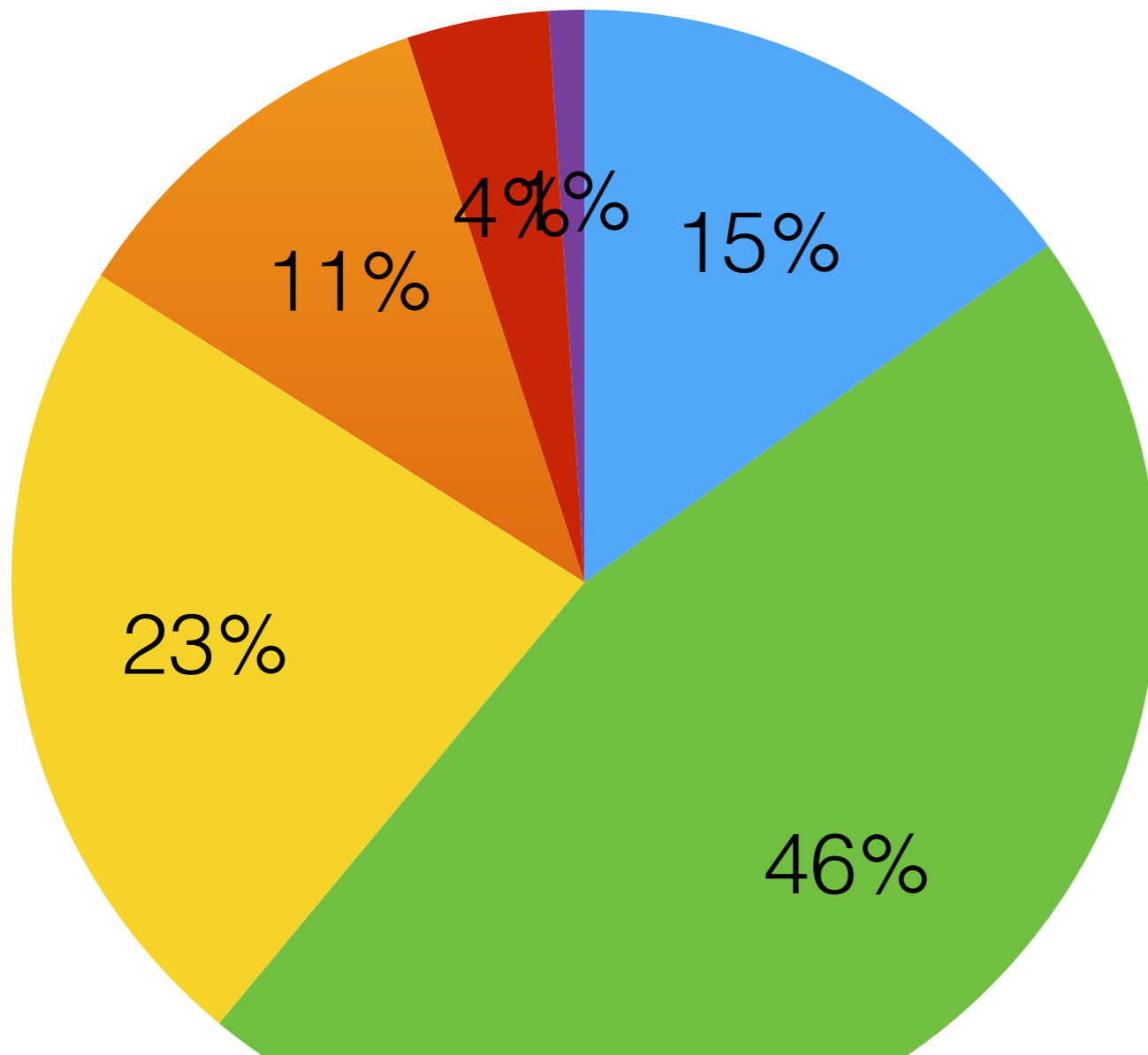
CrowdFlower



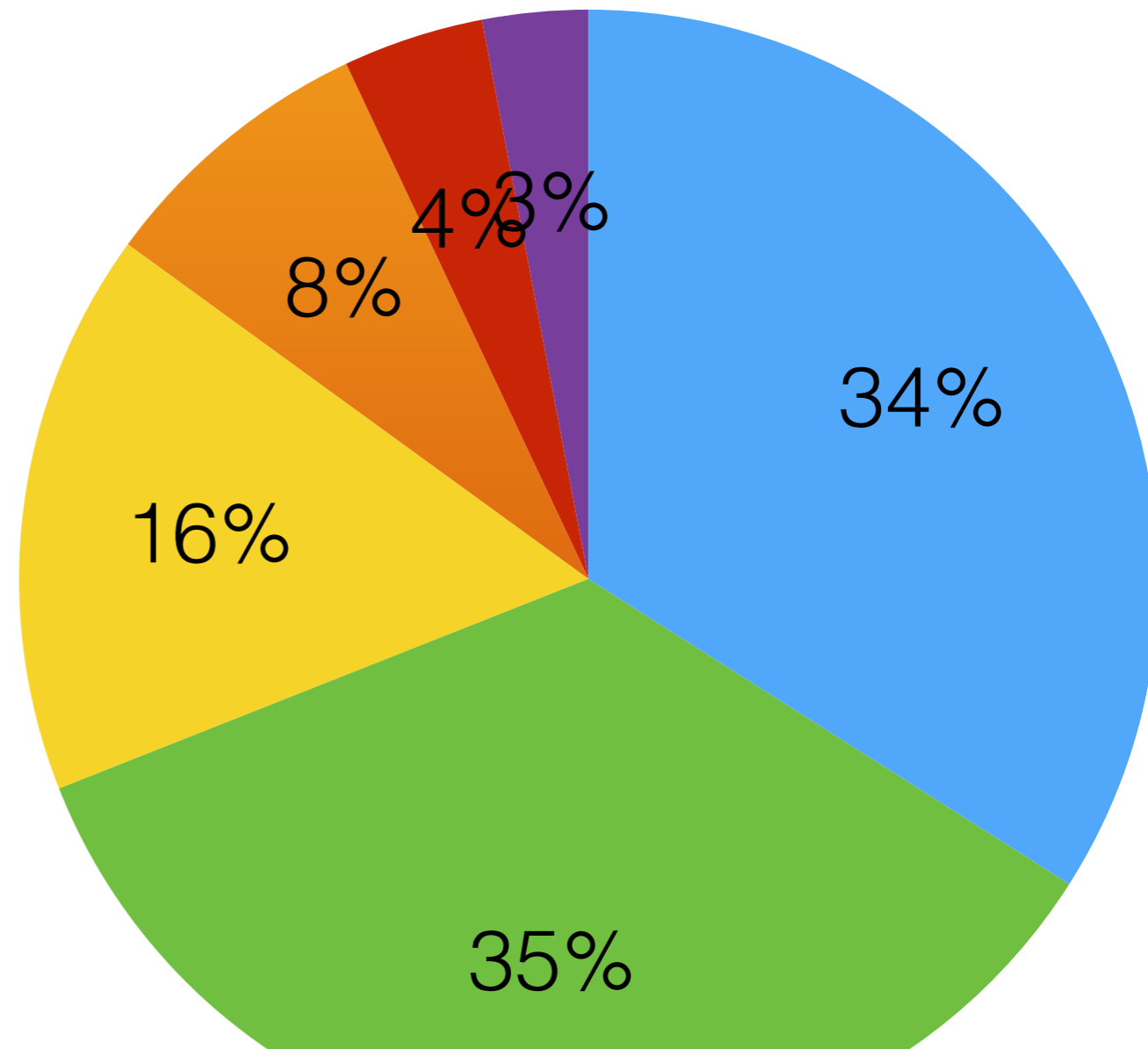
- US
- India
- UK
- Indonesia
- Canada
- Philippines
- Pakistan
- Others

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Mechanical Turk



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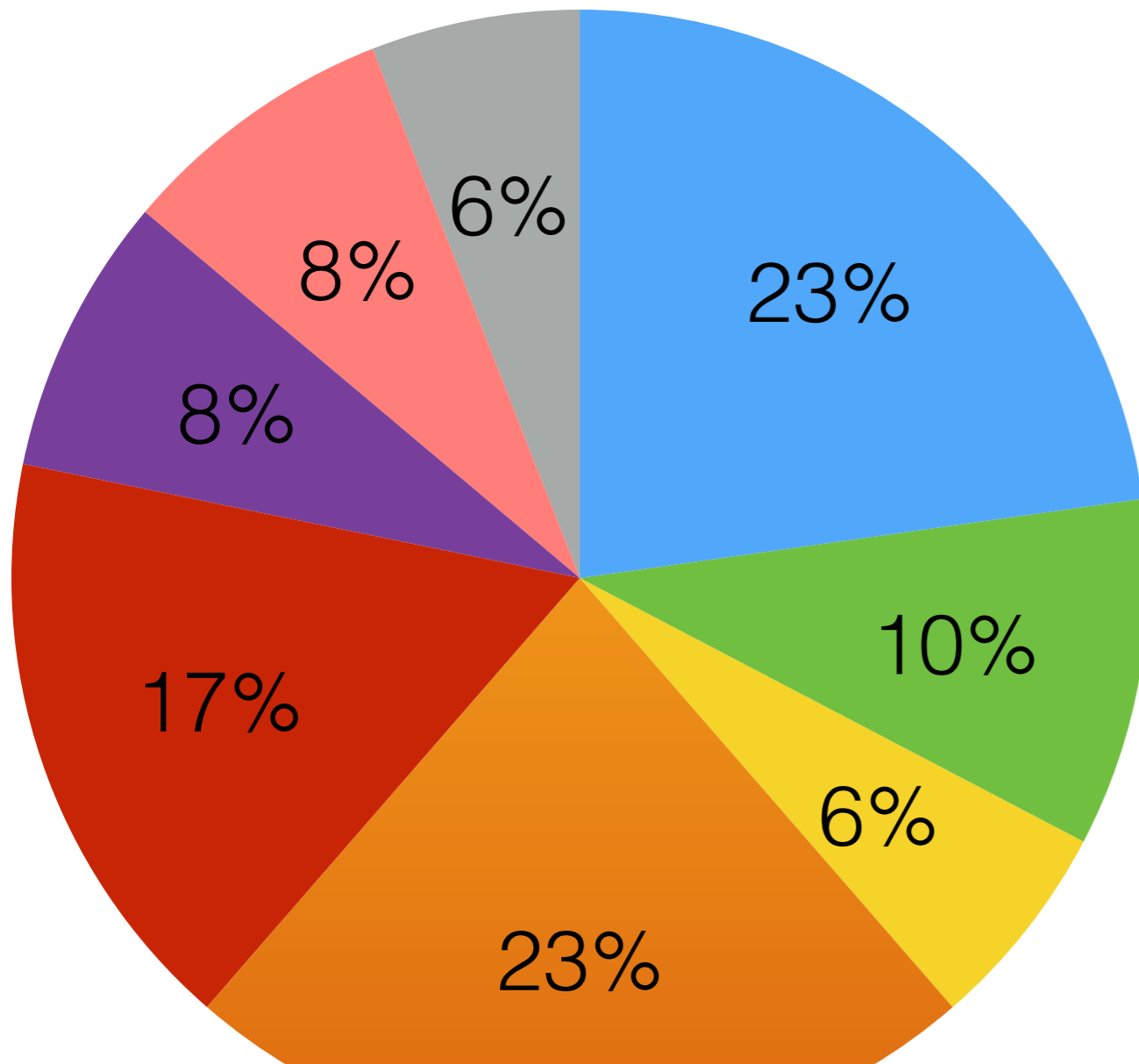
● 25 or younger  
● 45-55

● 25-35  
● 55-65

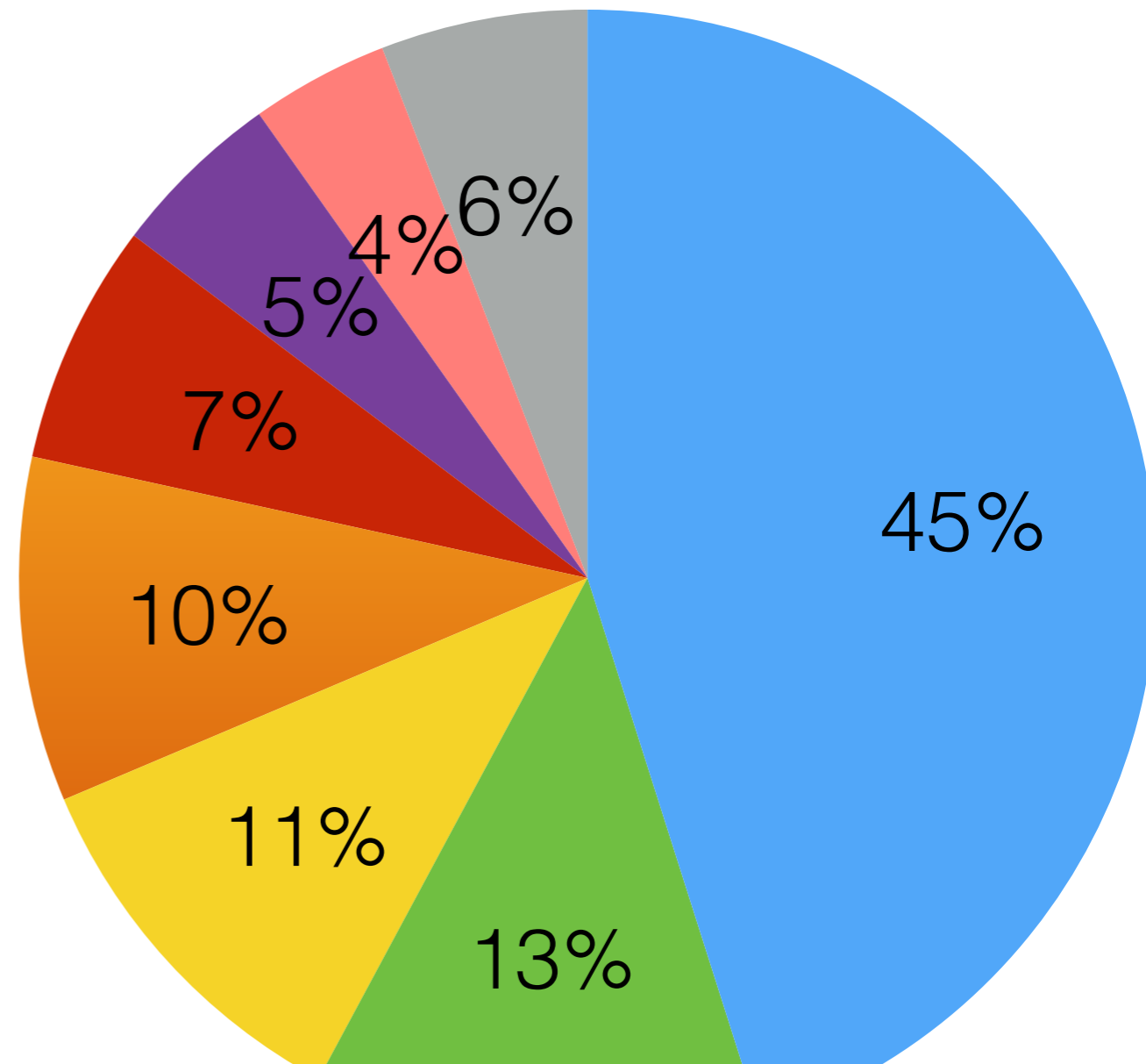
● 35-45  
● 65 or older

# Who is doing all this work for us?

Mechanical Turk



CrowdFlower



● Less than 10K

● 10K-15K

● 15K-25K

● 25K-40K

● 40K-60K

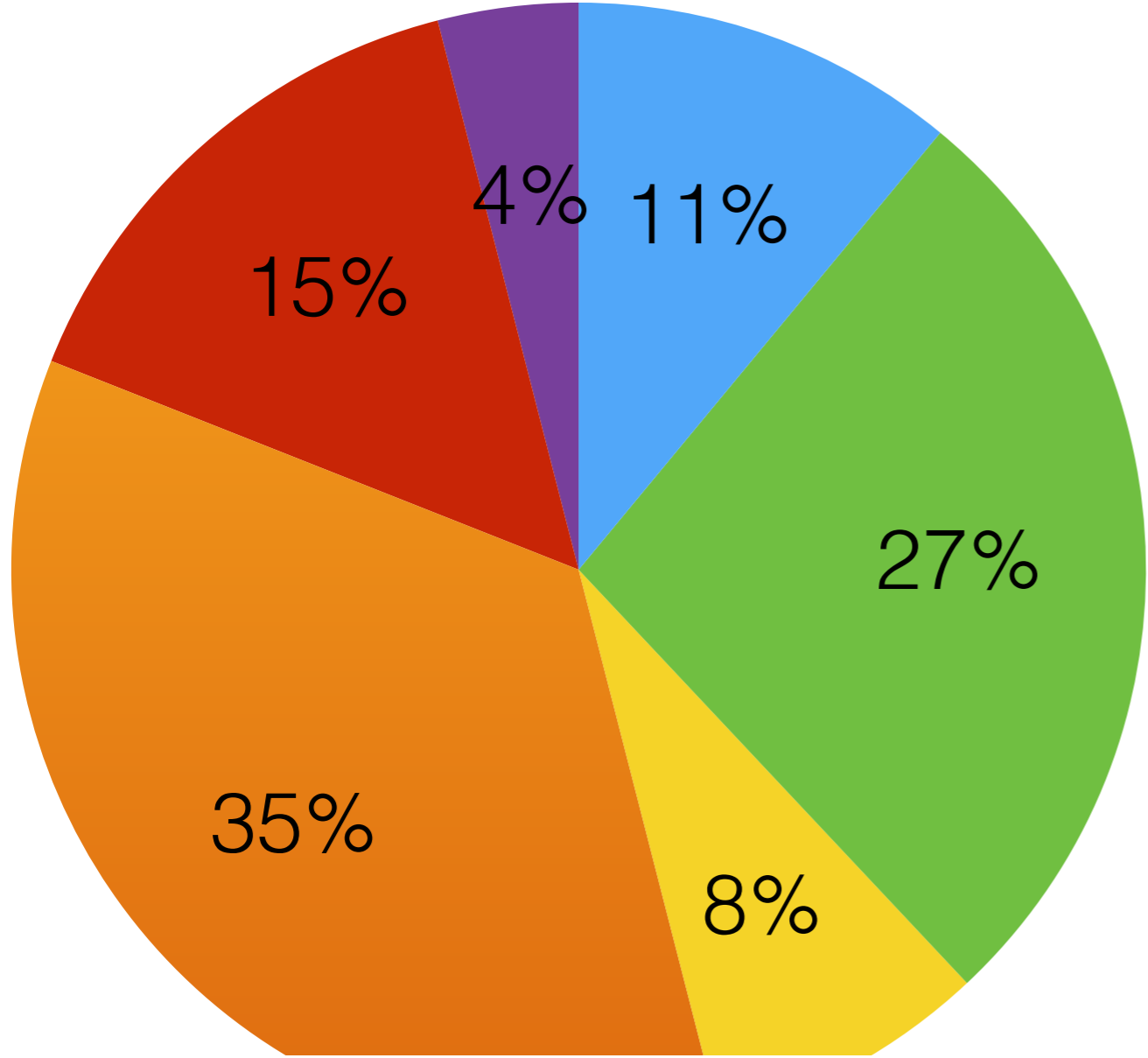
● 60K-75K

● 75K-100K

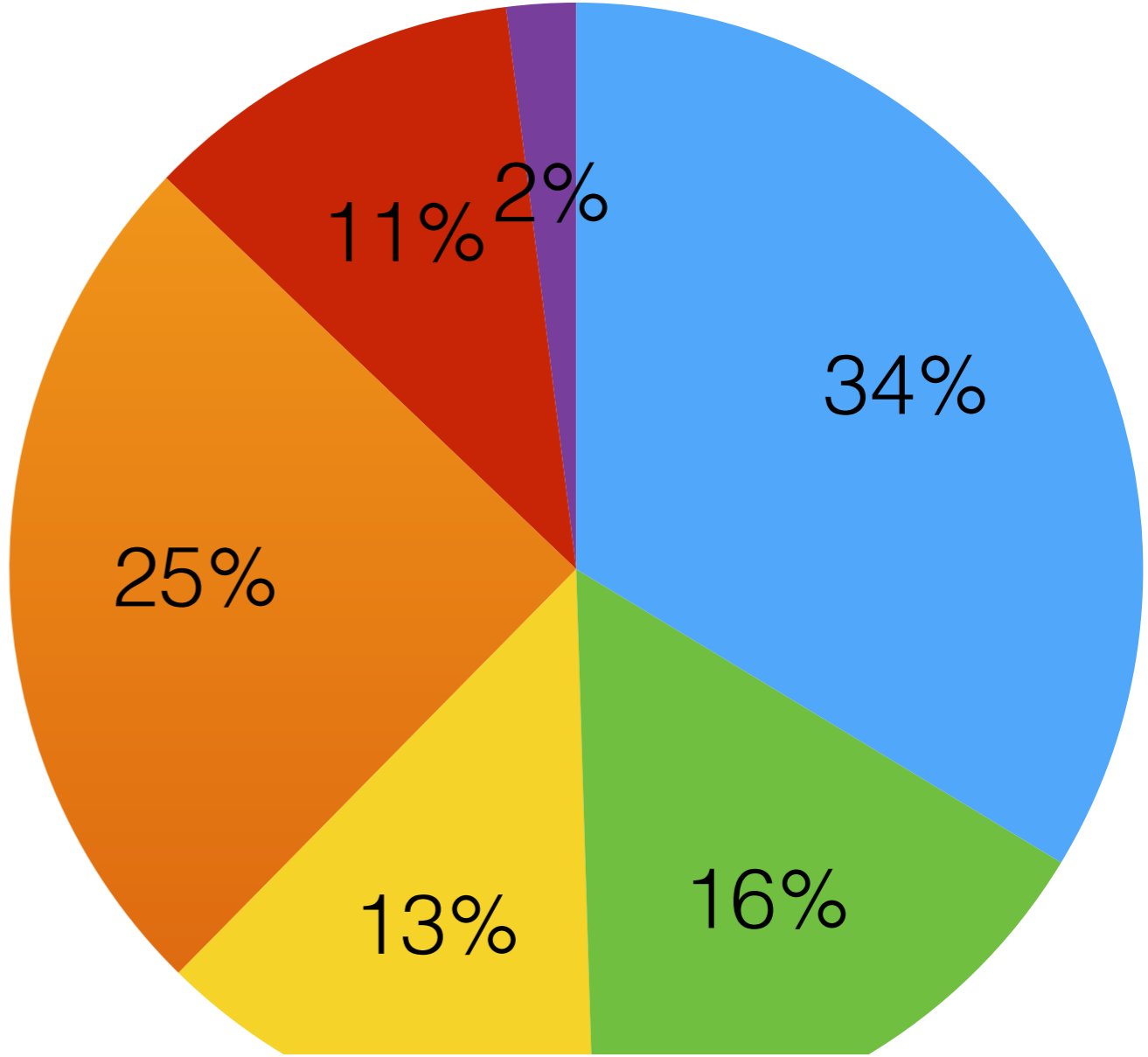
● More than 100K

# Who is doing all this work for us?

Mechanical Turk\*



CrowdFlower



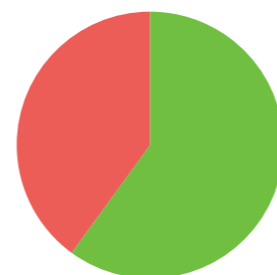
- High School
- Some College
- Associates
- Bachelors
- Masters
- PhD

\*Data is from 2010 and reflects only US workers  
<http://www.behind-the-enemy-lines.com/2010/03/new-demographics-of-mechanical-turk.html>

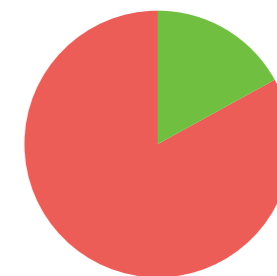
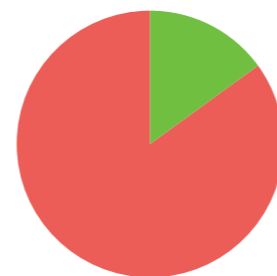
# Why are they doing all this work for us?

Mechanical Turk\*    CrowdFlower

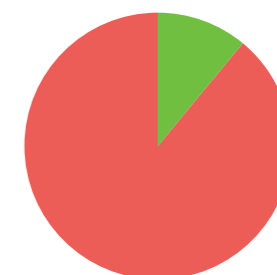
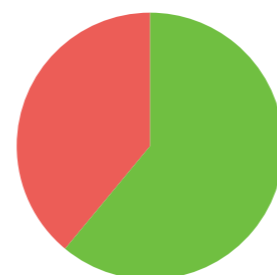
Good way to spend free time and earn money (e.g. instead of TV)



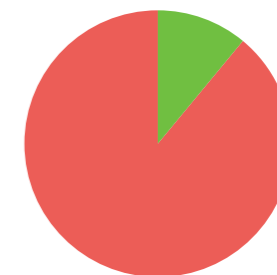
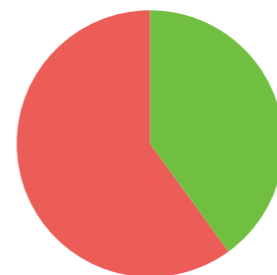
As a primary source of income



As a secondary source of income/  
pocket change



It is just so much fun!!



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# Considerations for the requester

**amazon** **mechanicalturk**<sup>™</sup>  
Artificial Artificial Intelligence



**CrowdFlower**

# Considerations for the requester



- Mostly US workers



- Better international coverage

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- More flexibility with designing HITs, e.g. with Javascript



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- HIT designs are mostly plug-and-play for requesters

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  - Limited to tasks that can be QCed this way