

Crowd Workers

Crowdsourcing and Human Computation

Instructor: Chris Callison-Burch

Website: crowdsourcing-class.org

Discussion of HW1

Ethical questions about Mechanical Turk

- Who are the workers?
- Why would they work for pennies?
- Is it a digital sweatshop?

Ethical questions about Mechanical Turk

Amazon Mechanical Turk: Gold Mine or Coal Mine?

Karën Fort*
INIST-CNRS/LIPN

K. Bretonnel Cohen†
U. Colorado School of Medicine/U.
Colorado at Boulder

Gilles Adda**
LIMSI/CNRS



Recently heard at a tutorial in our field: “It cost me less than one hundred bucks to annotate this using Amazon Mechanical Turk!” Assertions like this are increasingly common, but we believe they should not be stated so proudly; they ignore the ethical consequences of using MTurk (Amazon Mechanical Turk) as a source of labour.

Manually annotating corpora or manually developing any other linguistic resource,

Here's an excerpt from an IRB application Chris Callison-Burch posted - "We will pay participants small sums of money to complete our tasks, ranging from \$0.01 to \$1. All participants can choose for themselves whether the compensation is fair, and opt not to do it if they deem the compensation to be too low. Amazon's Mechanical Turk has many other researchers and companies offering tasks, so we will offer compensation that is similar to what others offer."

He first refers to Amazon's Mechanical Turk as "an online labor market." And that, I agree with. It is an online labor market.

Requesters like him, and CrowdFlower, **collude**, explicitly or implicitly, **to keep wages at a substandard level** that is compatible with existence standard.

Unlike Jewels, I don't blame workers for taking low paying jobs. I can't blame a person for being needy enough to take what amounts to a crust of bread. **I blame Chris Callison-Burch, and others like him, for keeping the standard wage at crust of bread level.**

I feel like Maria in "Metropolis."

I tried one of those to see, I gave it up at 4 minutes in and about 2/3 of the way through. For the whole hit, I'd have taken about 6 minutes. 10 hits an hour - **\$1.70 an hour**. Restricted to U.S. residents.

This is far too low to be considered a fair wage for a U.S. resident. My performance may be very far off from what others can do. Perhaps I took 4 times or more as long as an average worker would.

My complaint is that any U.S. requester knows what wage rate is required for a U.S. resident to survive. We may not agree on an exact number. But as they say, I know a fair wage when I see it, and this is not it.

Mturk is actually much smaller than what it can appear to be. Something close to requester monopoly has the power to keep wages low. Requester co-operation, explicit or implicit, reinforces this.

Chris Callison-Burch is not unaware, I think, of the mechanics of the wage structure of Mturk.

**WORKERS
OF THE WORLD
UNITE!**



Web Workers Unite! Addressing Challenges of Online Laborers

Bederson and Quinn (ALT CHI 2011)

The ongoing rise of human computation has created an environment where human workers are often regarded as nameless, faceless computational resources. Some people have begun to think of online tasks as a “remote person call”.

Unfortunately, as with any labor market, once humans and money are involved, a host of problems surface. From privacy breaches to unpaid or underpaid labor, there are real social risks that arise with the use of these technologies

It is our responsibility to address them since it is designers, not ethicists or policy makers, who have the power to influence what is built and to mitigate risks before any harm is done.

MTurk for Workers

All HITs | HITs Available To You | HITs Assigned To You

Find HIT

- HIT Creation Date (oldest first)
- HIT Creation Date (newest first)
- HITs Available (fewest first)
- HITs Available (most first)
- Reward Amount (least first)
- Reward Amount (most first)**
- Expiration Date (soonest first)
- Expiration Date (latest first)
- Title (A-Z)
- Title (Z-A)
- Time Allotted (least first)
- Time Allotted (most first)

GO!

Show all details | Hide all details

Understand, would be useful to know how to clean up aud

HIT Expiration Date: Sep 4, 2013 (1 day 21 hours) **Reward:**

Time Allotted: 24 hours **HITs Available:**

Transcription of approximately 15 minutes of audio

Requester: [Amelia Jones](#)

HIT Expiration Date: Sep 5, 2013 (2 days 23 hours) **Reward:**

Time Allotted: 8 hours **HITs Available:**

By Invitation Only: Answer a few questions in a brief survey

Requester: [Qualtrics Survey](#)

HIT Expiration Date: Sep 5, 2013 (2 days 21 hours) **Reward:**

Time Allotted: 30 minutes **HITs Available:**

Take a geo-tagged photo of a landmark in North Dakota

Requester: [Crowdsourcing at Thomson Reuters](#)

HIT Expiration Date: Sep 5, 2013 (2 days 16 hours) **Reward:**

Time Allotted: 3 days **HITs Available:**

HITs

containing []

that pay at least \$ **Dashboard - Chris Callison-Burch** (If you're not Chris Callison-Burch, [click here.](#))

Your Worker ID: A23KO2TP7I4KK2

Total Earnings ([What's this?](#))

Rewards You Have Earned	Value
Approved HITs	\$44.29
Bonuses	\$0.00
Total Earnings Show earnings details ▾	\$44.29

Your HIT Status ([What's this?](#))

Date	Submitted	Approved	Rejected	Pending	Earnings
Today	2	1	0	1	\$0.05
Sep 2, 2013	8	8	0	0	\$0.24
View more...					

HIT Totals ([What's this?](#))

HITs You Have Accepted	Value	Rate	HITs You Have Submitted	Value	Rate
HITs Accepted	1303	—	HITs Submitted	1095	—
... Submitted	1095	84.0%	... Approved	1081	98.8%
... Returned	119	9.1%	... Rejected	13	1.2%
... Abandoned	89	6.8%	... Pending	1	—

HITs

containing

that pay at least \$ 0.00

.00

■ require Master Qualifications

Status Detail - Chris Callison-Burch (If you're not Chris Callison-Burch, click here.)

Show: All HITs  

HITs You Worked On For September 02, 2013 ([What's this?](#))

What sucks about the MTurk worker interface?

- No way to search by expected hourly rate
- No way to estimate the difficulty or length of time that it will take to do a task
- No way to know how reputable a requester is in advance
- No way to know how long until they will pay
- information asymmetry, imbalance of power

[Home](#)[Create](#)[Manage](#)[Developer](#)[Help](#)[Results](#)[Workers](#)[Qualification Types](#)[Manage HITs](#)

Manage Batches

Click on the name of the batch to see more details

▼ Batches in progress (1)

Compression HIT - grammar/meaning 10		Results	Cancel th...
Created:	July 04, 2013	Assignments Completed:	2,468 / 2,468
Time Elapsed:	1 day	Estimated Completion Time:	COMPLETE
Average Time per Assignment:	3 minutes 40 seconds	Effective Hourly Rate:	\$4.091
Batch Progress:	<div style="width: 100%;"><div style="width: 100%;">100% submitted</div></div>	<div style="width: 100%;"><div style="width: 100%;">100% published</div></div>	

▼ Batches ready for review (143)

[« Previous](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) ...

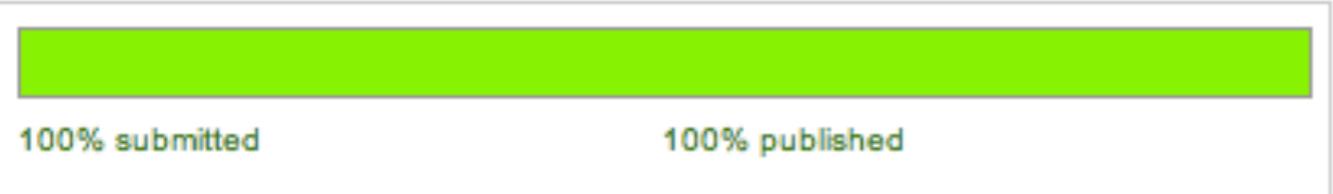
Word Alignment - Trusted Workers - Dev 0.7		Results	Delete
Created:	July 02, 2013	Assignments Completed:	1,995 / 2,000
Time Elapsed:	15 days	Estimated Completion Time:	September 03, 2013 4:41 PM (TODAY)
Average Time per Assignment:	1 minute 58 seconds	Effective Hourly Rate:	\$4.576

HIT - grammar/meaning 10

this batch, make changes, or get results.

ces and decide how grammatical they are

[Cancel this batch](#)



2,468 / 2,468

July 04, 2013 1:03 PM PDT

Average Time per Assignment: 3 minutes 40 seconds

Estimated Completion Time: COMPLETE

Average Hourly Rate: \$4.091

HIT - grammar/meaning

Read a group of sentences and decide how grammatical they are
English, writing, editing, language, research, language, paraphrasing,
paraphrases, summarization, summaries, text, comprehension, reading
HIT Approval Rate (%) for all Requesters' HITs greater than or equal to 85
(Required for preview)

Number of HITs Approved greater than 100 (Required for preview)

Location is UNITED STATES (Required for preview)

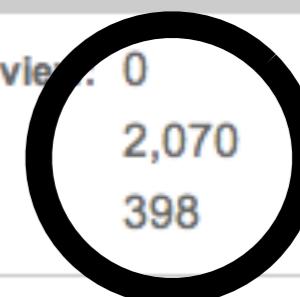
er HIT: 2

\$0.250

compression-evaluation.dev.csv

Results

Assignments pending review: 0
Assignments approved: 2,070
Assignments rejected: 398



Cost Summary

Estimated Total Reward: \$500.000
Estimated Fees to Mechanical Turk: \$50.000 (fee details)
Estimated Total Cost: \$550.000

These costs are only an estimate until all of the assignments have been submitted and reviewed.

[Approve](#)[Reject](#)

<u>Worker ID</u>	<u>Work Time In Seconds</u>	<u>Lifetime Approval Rate</u>	<u>Input.System Names 0</u>	<u>City</u>	<u>Region</u>
A1H11P4QSM08Y1	145	100% (59/59)	pos_control neg_control /export/common/SCALE13/...		
A3O7D2TTK99UK5	3	12% (119/1007)	pos_control neg_control /export/common/SCALE13/...		
ASB13NJKTGCYB	122	100% (44/44)	pos_control neg_control /export/common/SCALE13/...		
A1BM57TUNAQIXM	478	100% (3/3)	pos_control neg_control /export/common/SCALE13/...	Los Angeles	California
A3445FT062DGIX	231	100% (78/78)	pos_control neg_control /export/common/SCALE13/...		
AYSX5GNO640MZ	141	13% (5/39)	pos_control neg_control /export/common/SCALE13/...		
A21U64TBRENETA	158	100% (17/17)	pos_control neg_control /export/common/SCALE13/...	Orlando	Florida
A23AFAXSEYH61S	241	100% (177/177)	pos_control neg_control /export/common/SCALE13/...	Los Angeles	California
A1GYXHW4YCOJ0H	154	100% (77/77)	pos_control neg_control /export/common/SCALE13/...		
A3O7D2TTK99UK5	21	12% (119/1007)	pos_control neg_control /export/common/SCALE13/...		
AUGRDUEDEUXUS	184	100% (12/12)	pos_control neg_control /export/common/SCALE13/...		
AYSX5GNO640MZ	182	13% (5/39)	pos_control neg_control /export/common/SCALE13/...		

TurkOpticon plugin

Workers rate Requesters based on a Requester's:

- **communicativity**: How responsive has this requester been to communications or concerns you have raised?
- **generosity**: How well has this requester paid for the amount of time their HITs take?
- **fairness**: How fair has this requester been in approving or rejecting your work?
- **promptness**: How promptly has this requester approved your work and paid?

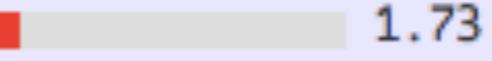
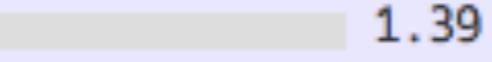
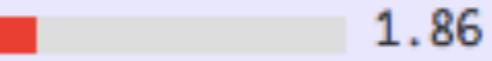
Choose the best category for this government project (good english important)

Requester:

 [The Public Group](#)

HIT Expiration Date:

Sep 10, 2013 (6 days)

communicativity:			1.17 / 5
generosity :			1.73 / 5
fairness :			1.39 / 5
promptness :			1.86 / 5

Time Allotted:

60 minutes

[What do these scores mean?](#)

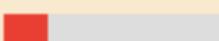
Scores based on [81 reviews](#)

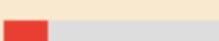
Terms of Service violation flags: 0

[Report your experience with this requester »](#)

[Contact Us](#) | [Careers at Amazon](#) | [Developers](#) |

©2005-2013 Amazon.com, Inc. or its Affiliates

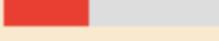


Took a leap of faith on this requester and was rewarded with a %50 reject rate and a broken search feature and no feedback. Would not recommend, even if you have thousands of HITs under your belt to cushion the inevitable rejections.

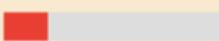
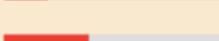
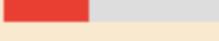
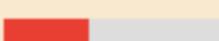
Aug 29 2013 | [KBH19](#) | flag | comment






Arbitrarily rejected over half of the hits I submitted, and then banned me from submitting any more hits for them. I suppose that's a blessing in disguise though, as I had no intention of doing any for them again after the first batch of rejections.

Aug 21 2013 | [bour...@g...](#) | flag | comment

Their HIT is very unclear. There is an option to browse for the result, but it does not work.

Aug 20 2013 | [jeff...@g...](#) | flag | comment

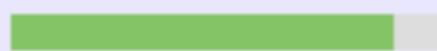
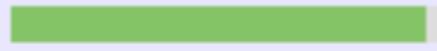
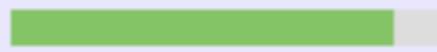
Word Alignment

Requester:

 [Chris Callison-Burch](#)

HIT Expiration Date:

Nov 12, 2013 (9 weeks)

communicativity:		4.05 / 5
generosity :		4.01 / 5
fairness :		4.25 / 5
promptness :		4.01 / 5

Time Allotted:

60 minutes

[What do these scores mean?](#)

Scores based on [95 reviews](#)

Terms of Service violation flags: 1

[Report your experience with this requester »](#)

[Contact Us](#) | [Careers at Amazon](#) | [Developers](#) |

©2005-2013 Amazon.com, Inc. or its Affiliates

For those of you who know Arabic, this is a very solid requester with a very fair pay. Highly recommended for those who want to make some real money. Payment usually take one week depending on the HITs you are doing

don't waste your time trying to submit machine translated crap, or random answers to multiple choice questions, you will get blocked instantly

Jul 27 2013 | [hala...@h...](#) | [flag](#) | [comment](#)

 Chris is one of the better requesters on MTurk, if you meet his qualifications and actually do the work as he requires. Glad to see that someone out there can finally work on those Arabic translation HITs that we've all seen for months now.

Jul 27 2013 [baudelai...@m...](#)

Good requester. Everything approved in a couple of days. I had no problems. This is a safe requester to work for.

Requester:

▼ [Chris Callison-Burch](#)

HIT Expiration D

[Tag article](#)

Requester:

[What do these scores mean?](#)

HIT Expiration D

Scores based on [190 reviews](#)

Time Allotted:

Terms of Service violation flags: 2

[Report your experience with this requester »](#)

FAIR: NO DATA

FAST: NO DATA

PAY: 1 / 5 

COMM: NO DATA

Did about 50 of these earlier and was a little weary based on reviews. They all approved which was good for me, but I hope the requester doesn't do the majority rule thing anymore. It seems that's why many got rejected and he doesn't seem to respond to others so do at your own risk.

Jan 19 2016 | [dancab...@y...](#) |

FAIR: 5 / 5 

FAST: 5 / 5 

PAY: 5 / 5 

COMM: NO DATA

HIT(s):

Determine whether or not sentences are true; Translation from Russian to English

I've done a few of the "Determine whether or not sentences are true" HITs for this requester, which were great, paid fairly, in my opinion and took just a couple hours to approve and pay.

I also did many translations from Russian to English and all of them got approved. Pay on these varies because it's 4 sentences per HIT for 30c but sometimes sentences are very long, sometimes very short.

Turker Nation discussion boards

- A watering hole for Turkers to discuss MTurk and Requesters
- Has a Requester Hall of Fame / Shame
- Lots of engaging conversation
- Sometime people vent their frustration

crowd-workers.com

- I am developing a browser plug-in that will improve the MTurk UX for Workers
- The idea is to track and aggregate statistics across many workers, so that they have better information
- Academically, I am interested in these questions
 - a) How much time does the average Turker spend working?
 - b) What is their hourly rate?
 - c) How reputable are requesters (what fraction of the HITs do they approve v. reject)?
 - d) How much time to workers spend searching v working?

qualitative v quantitative

TurkOpticon's qualitative attributes	CrowdWorker's quantitative equivalents
promptness: How promptly has this requester approved your work and paid?	Expected time to payment: On average, how much time elapses between submitting work to this Requester and receiving payment?
generosity: How well has this requester paid for the amount of time their HITs take?	Average hourly rate: What is the average hourly rate that other Turker make when they do this requester's HITs?
fairness: How fair has this requester been in approving or rejecting your work?	Approval/rejection rates: What percent of assignments does this Requester approve? What percent of first-time Workers get any work rejected?
communicativity: How responsive has this requester been to communications or concerns you have raised?	Reasons for rejection: Archive of all of the reasons for Workers being rejected or blocked by this Requester.

CrowdWorkers Amazon Mechanical Turk

crowd-workers.com/discover?size=36

 Crowd Workers

Discover Track Your Stats

Chris Callison
ID: A23KO27

Search for HIT Minimum hourly rate Rate Search

Discover

Here are HITs that other Crowd Workers completed. You can sort by the hourly rate averaged across all workers, and other features.

Hitgroup name, description and keywords	Requester	HITs available	Hourly rate	Reward\$
Parents of 11- to 18-month-olds: Complete an online study with your child about intuitive probability! go to MTurk page For parents/guardians to complete with child aged 11 to 18 months ONLY: participate in a web-based experiment about how your child makes predictions. baby,babies,infant,children,child,parenting,kids,parents,causal,reasoning,probability,cognitive,development,learning,psychology,experiment	Lookit	1	\$590.55 \$2.50	
Website Content Review 6 go to MTurk page Search "warburg pincus healthcare". List the 1st option in the top navigation bar, of the 1st search result for payment. warburg,pincus,healthcare	Cam Elizabeth Harvey	1	\$29.03 \$0.03	
App Usage Study go to MTurk page Testing new apps for mobile devices over a 12-day period survey,apps,mobile	Gracy P.	1	\$25.18 \$8.00	
Website Content Review 43 go to MTurk page Search 'gramercy emerging markets high yield fund'. List the title of the 2nd option in the website navigation menu of the 1st search result for	Cam Elizabeth	1	\$23.79 \$0.03	

Workers' concerns

- Wage issues: unfairly rejected work, slow payment, and payments that do not fairly reflect the work that they performed
- No appeals process for unfairly rejected work. Requestors can unresponsive.
- Grass roots tools, user-maintained ratings/blacklist of requestors

Requesters' concerns

- Quality: Workers may do substandard work or more blatantly cheat
- Cheating by randomly clicking or typing, using scripts to enter useless input, or giving answers that are not useful, but just relevant enough to get payment
- No ability to judge workers' skills or qualifications in advance
- Often difficult to automatically judge the quality of work

System Design Guidelines

Bederson and Quinn (ALT CHI 2011)

- Provide **hourly pay** and **disclose the expected wage**
- **Value workers' time** and optimize tasks to use worker's time effectively
- Use **Objective quality metrics** to approve or reject
- **Give immediate feedback** to workers on their quality, and warnings to problematic workers

System Design Guidelines

Bederson and Quinn (ALT CHI 2011)

- Define **payment terms** including how quickly payments will be paid, and follow them.
- **Provide a grievance process** for workers who were treated unfairly. Removes the imbalance of power.
- **Provide task context:** Makes work more satisfying to workers, and lets them make informed ethical choices about what work to do
- **Limit anonymity:** Anonymity of requestors enables them to reject work with impunity. Anonymity for workers enables them to cheat with nearly no risk

Who are the Turkers?

Worker ID

A1H11P4QSM08Y1

A3O7D2TTK99UK5

ASB13NJKTGCYB

A1BM57TUNAQIXM

A3445FT062DGIX

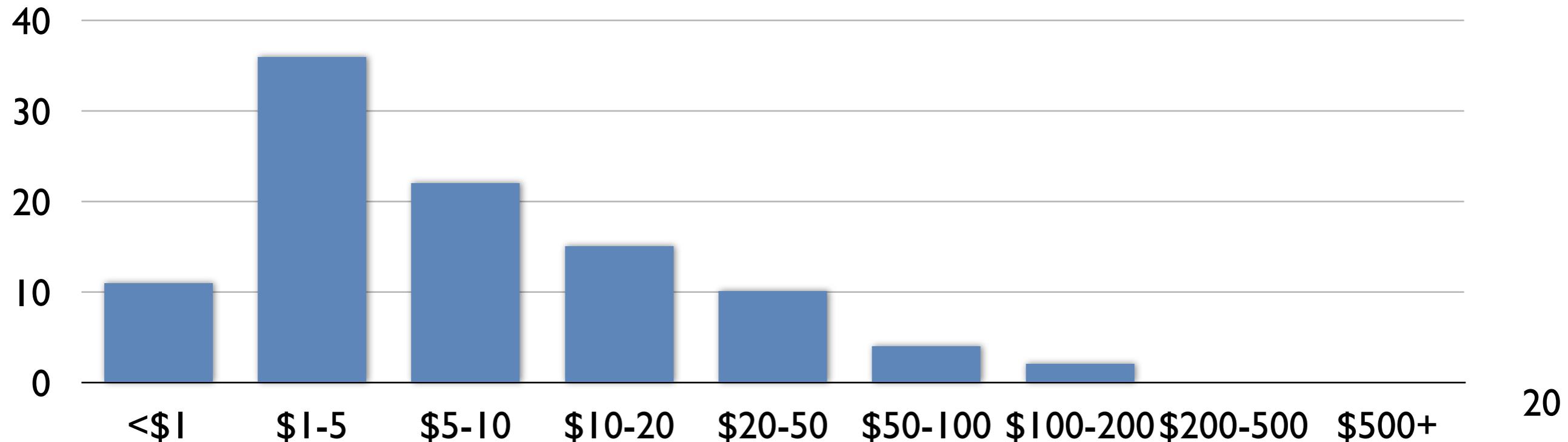
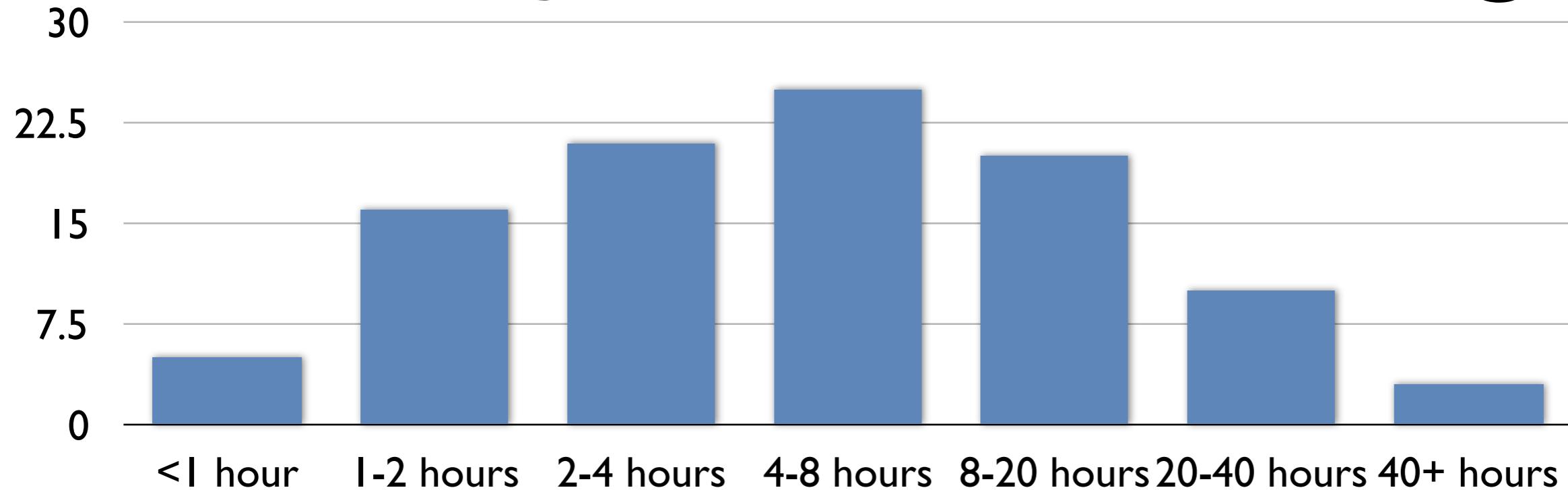
AYSX5GN0640MZ

- Requesters are given very little information about Turkers - basically just a serial number
- No names, no demographic information (like what languages they speak)
- Who are these people who work for us?

Who are the Turkers?

- Post a HIT to interview them!
- Panos Ipeirotis has a nice demographic survey on his blog “A Computer Scientist In Business School”
- Age, Gender, Education Levels, Marital Status, Household Income, Weekly earnings. **Why do you it?**
- India versus USA

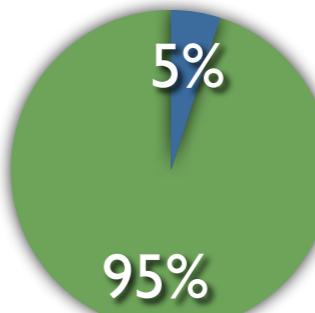
Weekly hours, earnings



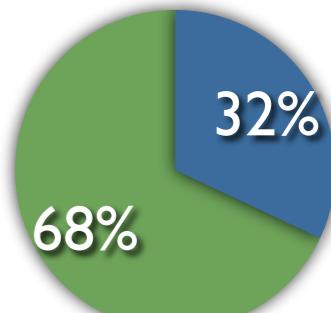
Why do you do it?

I use MTurk to kill time

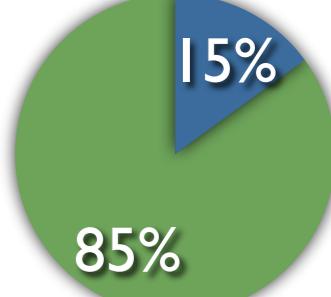
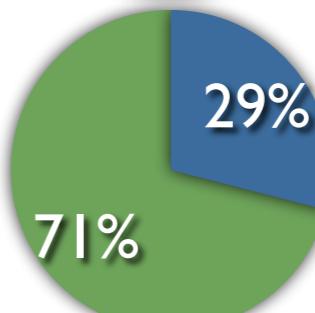
India



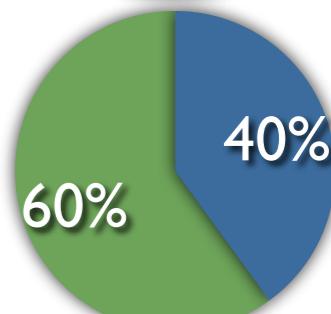
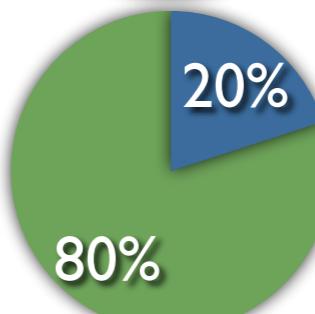
USA



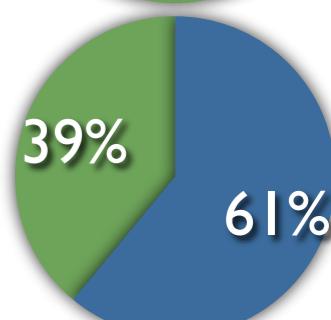
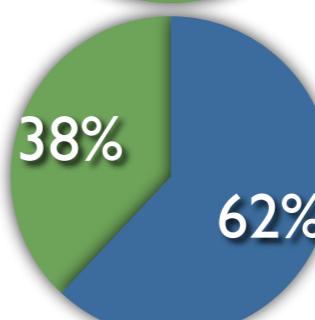
Primary source of income



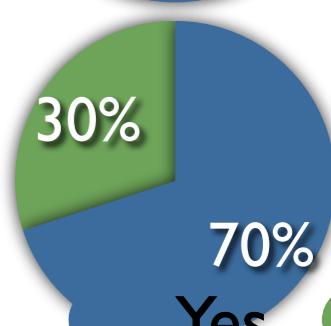
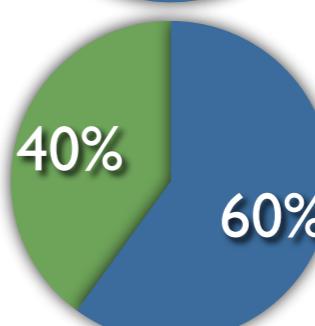
I participate on MTurk for fun



Secondary source of income
or for pocket change



Fruitful way to spend free time
and get cash (instead of TV)



● Yes

● No

● No

Ethnographic Study of Turker Nation

Being a Turker, Martin et al (CSCW 2014)

Observation: 40% of US-based Turkers said they did it for fun.(Ipeirotis study)

Conclusion: Turkers do HITs because they like them, regardless of what the pay is

Turking for Fun?

danturker

This attitude would be requesters dream come true. The workers come here to have fun and play and the lousy pay for work is not an issue. This attitude helps create low pay for the AMT work force that does care about fair pay.

lark56

I agree with most everyone here. While I do find some of the HITS fun and actually learn an incredible amount by doing HITS, I do it for the cash.

Ethnographic Study of Turker Nation

Being a Turker, Martin et al (CSCW 2014)

Assumption: MTurk is a pure form of market that falls into a fair equilibrium. Bad employers and workers are rooted out as their poor actions become visible. Wages or pricing settles to a 'natural' level.

Conclusion: "apparently half a million people find work at pay rates they're entirely happy with but pay rates that are below minimum wage"

–Tim Worstall, Forbes blogger

Pay Expectations

jimtexan79

I was hoping to make at least \$3,650.00 (you know, 10 bucks a day) but, alas, I fell short. I blame all those summer months that I slacked off. :[

So, how much didja make? Was it what you hoped?

mwanza57

I made \$1,179. Would love to double that for next year.

bubbles

\$14,476.93 Hoping to do better this year.

defectturk

It is a full part time job for me. I can turk during slow periods at my day job and from 4-10 during the week I turk. Because of pay cuts at my day job I would have to be working a part time job outside the home if I did not turk. And yes, my boss is aware of my activities and when they cut our pay the last time, he openly told us that if we can find other work that he would be flexible in allowing it. Just trying to hold on until the housing market rebounds and keep the company in business. It is cool of him to allow it, but I would much rather have my salary back and drop turking.

jane

I am having a hard time. Mentally, spiritually, physically, and especially financially. My roommate has been out of work for almost 2 months, and ran out of money a few weeks ago... I have to come up with \$\$ if he can't keep this roof over my own head. And he does now have a job that he is in training for--tho he will not see any money from it for a few MORE weeks. In the meantime, rent is due today, and I don't have all of it. I am going to have to beg the office to take what I do have, and let me pay the rest next paycheck. I could stand that, if that were all there was, but the power and internet need to stay on, or NEITHER ONE OF US will have any income. I paid the power right before cut off last time--that means it can't be long before cut-off notice comes a-knockin again. I know the internet bill is like that too now... I have been beating my head in trying to do more turking, more anything online [... rest of post omitted...]

Jobs in the sharing economy



In Search of Uber's Unicorn

The ride-sharing service says its median driver makes close to six figures. But the math just doesn't add up.

By Alison Griswold



An Uber driver waits for customers in his car in Beverly Hills, California.

Photo by Lucy Nicholson/Reuters



New York Uber Driver Refuses to Take Woman in Labor to Hospital, Charges Her \$13



Taxis Are Doomed and They Know It. Here's Why There's Nothing They Can Do.



Can a Field in Which Physicists Think Like Economists Help Us Achieve Universal Knowledge?

FROM THE WEEK



Report: Most of America's largest police departments allow officers to choke, strangle, and hog-tie people



The Economy Kind of Sucks for People Who Don't Drive

U B E R D R I V E R S

Read here about an important lawsuit brought by Uber drivers to recover the tips they should have received and reimbursement for expenses

Uber drivers have filed a class action lawsuit claiming they have been misclassified as independent contractors and are entitled to be reimbursed for their expenses that Uber should have to pay, like for gas and vehicle maintenance. The lawsuit also challenges Uber's practice of telling passengers that the gratuity is included and not to tip the drivers, even though you are not getting a tip!!

THIS CASE HAS NOW BEEN SET FOR TRIAL IN JUNE 2016!

We won a major victory on March 11, 2015, when the judge overseeing the case, Judge Edward M. Chen, of the federal district court in San Francisco, [denied Uber's motion for summary judgment](#)! In his decision, the judge agreed with many of our arguments about why Uber drivers may be properly classified as employees. Under the court's order, the case will go to trial before a jury. See the news stories below for reports on the ruling.

We won another important victory on December 9, 2015, when the court issued its [final order certifying the case as a class action](#). Under this decision, the case will now include all drivers who have contracted with Uber directly and in their own name (not through intermediate companies) in California since 2009.



In order to join our list of drivers interested in the case, and to sign up for us to represent you individually in the event that we need to pursue individual cases (such as in arbitration) to collect any wages that may be owed to you based on Uber's misclassification of drivers, [PLEASE CONTACT US](#) to obtain a form to return to us.

Shannon Liss-Riordan
Adelaide Pagano

U.S. Department of Labor
Wage and Hour Division
Washington, D.C. 20210

Misclassification of employees as independent contractors is found in an increasing number of workplaces in the United States, in part reflecting larger restructuring of business organizations. When employers improperly classify employees as independent contractors, the employees may not receive important workplace protections such as the minimum wage, overtime compensation, unemployment insurance, and workers' compensation. Misclassification also results in lower tax revenues for government and an uneven playing field for employers who properly classify their workers. Although independent contracting relationships can be advantageous for workers and businesses, some employees may be intentionally misclassified as a means to cut costs and avoid compliance with labor laws.

The Department of Labor's Wage and Hour Division (WHD) continues to receive numerous complaints from workers alleging misclassification, and the Department continues to bring successful enforcement actions against

This Friday

- HW1 is due
- HW2 will be assigned. **Profile a company that uses crowdsourcing.** Think about ethics and controversies in addition to how awesome a company is.
- Friday will be another hands-on lecture. We'll walk you through HW2, show you how to make a video.
- Friday we may also walk you through installing iPython, so please bring your laptop.

Today

- If you need help with HW1
 - My office hours are now in Levine 506
 - Check the calendar for TAs' office hours