For my research portfolio, I started with primary research, first inadvertently getting some feedback from friends and family when the topic came up at a dinner conversation. A valuable lesson learned from this experience was that appearances can be deceiving and that a much larger segment of the population engages in the underground economy as well as the mainstream economy. In the field, I first searched potential underground salespeople by searching on Craigslist and contacting them via text to get more information. Then I visited a flea market in Bucks County, which represents a formal location where many informal economies exist. I perused the tents finding those selling cell phone related accessories, then further questioned the vendors if they also bought and sold cell phones. Two out of the three vendors said that they did and explained their strategies. After Rice's flea market, I called the one lead from Craigslist who had responded to my text. Initially he seemed quite hesitant to meet with me, stating he had limited time and evading my request to learn more, but after I persevered and visited his store in Market East Gallery in person, he was open to sharing industry info and even agreed to forwarding me a pricing list from his connection.

All five individuals that I spoke with in person seemed to have a firm concept in their heads of what the pricing should be for a cell phone in the second hand market, but all three stated that these prices fluctuate often with the advent of new phone models. None could officially describe the exact algorithms for calculating pricing, rather referred to comparing prices to other online sources or determining fair value through word of mouth and networking through others involved in same or upstream levels on the supply chain. Another common theme was that each of the vendors had a "front store" that did not directly advertise that they bought/sold phones, indicating this activity as a side project outside of the core business. Joe and Noah stated they made more on the accessories/front end business where as Jay made significant margins on the large scale buy and sell business.

Following direct primary research with individuals, I visited Game Stop and spoke to their associate about how their system works. They have a software system that calculates how much Game Stop would purchase the phone for in cash and for store credit. When I got back from the field work, I checked the pricing list that Jay sent me and then contacted the CEO of CellBay for more information. Then I checked online suppliers, Gazelle, Glyde, and eBay. I also sent requests to Support departments of Gazelle and Glyde, asking them for more information on their algorithms. After the primary research and contacting some of the online vendors, I followed up with some secondary online sources.

Below contains documentation of evidence from primary and secondary sources.

Megan Hayes- I first stumbled upon a source when I went to my brother's new place in South Philly and brought up the assignment at dinner. His roommate's girlfriend was part Peruvian and explained how when she visits her family down there, they will bring 12 cell phones and sell them for such a profit down in Peru. Because Apple releases phones first in the U.S.A it can take years for the new models to trickle to South America. Also, due to this lack, it is common to also have fake iPhone in Peru. Megan also said most people in Peru don't have cell phone plans and have pay-per-use minutes/texts. The major players like Verizon and AT&T do not exist in South America.

Megan had another unique perspective. She started an organization for kids with learning disabilities to explore their learning style and make the best use of their individual strengths through the use of peer-topeer mentoring. She predicts that it would be common for people with learning "disabilities" who were rejected from the mainstream society and were unable to find jobs in traditional outlets to use their inherent risk-taking and innovative skills to be successful in underground markets, such as the used cell

phone market. Talking with Megan gave me the confidence that others who you may not expect could have bits and pieces to offer about this complex puzzle.

Exhibit 1. Megan Hayden bio

MEGAN HAYDEN



FOUNDER

I started **PROCESS THIS** because students like myself with learning "challenges" or "disabilities" need to find their own strategies and systems that work for them and their learning style.I want our next generation of students to find strength in their abilities.

Meg Hayden is a PHS alum. Studied Agroecology at Penn State University.

Peyton Baughn- When my brother got a phone through work six months ago, he decided to sell his personal phone through posting an ad on Craigslist. Verizon iPhone 5, 16GB for 300\$. Within 1 day, there were 10 responses. He sifted through the responses to find a legitimate offer. Peyton met the guy at Home Depot to complete the transaction. Because my brother works as a security engineer, he insisted in meeting in a place where he knew there would be cameras. The guy, named Mark, paid him in cash. (*Exhibit 33.shows their email transaction*)

Craigslist-

Feeling desperate for research, I turned to Craigslist and searched for people buying and selling phones. I found two ads, see below and texted both numbers, asking them if they buy iPhones. The "we buy iPhones" one didn't respond.

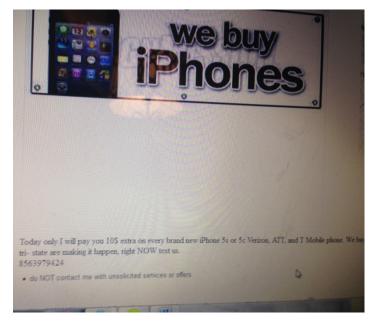


Exhibit 2. Craigslist add for one day deal for buying iPhones

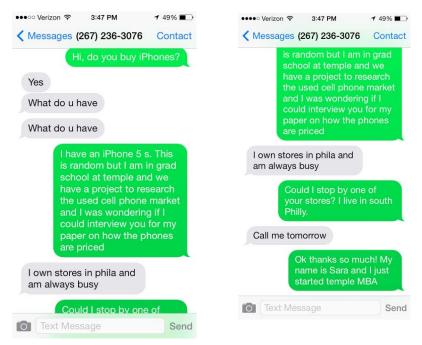
The guy with all the cash did respond.



do NOT contact me with unsolicited services or offers

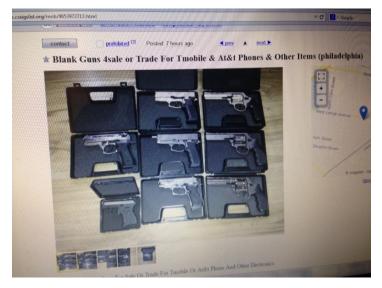
Exhibit 3. Craigslist ad for "#1 buyer in the tri-state area"

Exhibit 4. and 5. Texts to Craigslist advertiser who buys phones



I also saw this ad for someone trading guns for phones... odd and scary. Did not contact them for safety reasons.

Exhibit 6. Ad trading guns for phones on Craigslist



When I checked back later, the gun trade add had been removed from Craigslist.

This posting has been flagged for removal. [?]

(The title on the listings page will be removed in just a few minutes.)

Rice's Market-

Noah- Was selling phone cases out of the back of a minivan. He looked about 20 years old. I asked him if he buys/sells phone and he said yes. He said his friends text him when their phones have a crack or they are looking to get a new one. He then fixes the screens or cracked glass on the backs and resells them on ebay. He said that you can get the best prices on ebay but they take 10% from the sale. He figures out his pricing by looking what other phones are priced at on ebay and other sources. He also stated that he makes great margins on selling the cases and gets them from "all over."

Exhibit 7. Noah in his minivan @ Rice's Market



Richard- Next I found Richard, a Chinese man, also selling accessories. I asked him if he buys/sells and he said no. He said he used to but authorities are really starting to crack down with the stolen/lost phones and it became to risky. He gets all his accessories from China and said that China is the biggest market for phones. He has a store in Chinatown New York.

Exhibit 8. & 9. Richard's stand @ Rice's



Joe- Then I interviewed Joe from New Jersey. He also had



accessories stand, so I asked him if he buys/sells. He said yes but it depends... He took a look at my phone and said he would buy it because it has a sim card. Verizon has been cracking down on lost/stolen phones and will not reactivate any phone reported as lost or stolen. So Joe won't buy the phones unless they have a sim card. Joe does most of his business from his car. When I asked him how he does his pricing for phones, he said he will go look around the mall and see what they are selling the phones for and then charge about half. When buying, he has to buy for less than that to make a profit. I inquired about what will happen when the iPhone 6 is released and he said the 4 will basically become obsolete. The iPhone 5's prices will drop for about 100\$ when the 6 comes out. When Joe is not at Rice's, he sets up his inventory inside of other businesses and said he was set up at a hospital in Jersey the other day. Then he donates some of the profits to the organization.

Exhibit 10. Photo of Joe @ Rice's Market



Market East—

After Rice's, I went downtown to the gym and called the number from Craigslist that I had been texting last night. I got the vm for "Jason" and left a message. He called me back and said he was "super super busy" and couldn't really meet but that I could stop by and talk to one of his employees at the store. So I found the kiosk location located in Market East Gallery called Go Smart Mobile. I spoke with Hector for a bit, who was expecting me. Hector told me that they buy new phones from wholesalers and sell them at the kiosk for no money down. (This is the front end business. Marketing materials for Go Smart Mobile in folder. Exhibit 11. & 12.) I asked if they buy/cell phones and he said that was Jay's side business. Jay was there so I got a chance to meet him and ask about his business. He joked that I shouldn't be contacting people from Craigslist.

Jay said that he buys phones from Craiglist and other sources and then sells them to this man named Pradeep. Pradeep then wire transfers him the money for the phones. Pradeep then likely marks the phones up even more and sells them in India. Jay also has a store in Burlington. He said he will oftentimes spend 50 grand on cell phones in a week (no wonder he has so much cash in that picture!). He

quoted that the lady who just left sold him 6 phones and he got \$1,000 bucks. I kept grilling him on pricing and how he "knows" what price he should buy and sell for. He said he just has the pricing pretty much in his head. He also mentioned that his girlfriend runs his ebay account where he also sells phones.

When I pressed him further, he says he also gets pricing sheets from someone in the industry. The pricing changes to the point where new sheets need to be sent. I asked him if he could give me a copy of his price list and he did! Jay has been in the business for 20 years and was very helpful. Also recorded some of our conversation. Hector also mentioned that his grandma will bring phones with her to sell when she goes down to the Dominican Republic and he also mentioned this is popular in Mexico.

See email in portfolio, Exhibit 13. Jay forwarded from "cellbay." Also see snips from the PDF (Exhibit 14.) from CellBay.

Exhibit 15. Claim from Cellbay that they do not buy lost/stolen phones

iCloud devices:

We do not purchase iCloud devices that have messages from the owner saying they lost their phone. We can only accept iCloud devices that are Clean ESN and have no message from the owner. We will return ALL devices that are stolen or have a message from the owner stating the phone is lost/stolen.

Exhibit 16. Jay's "front end store"



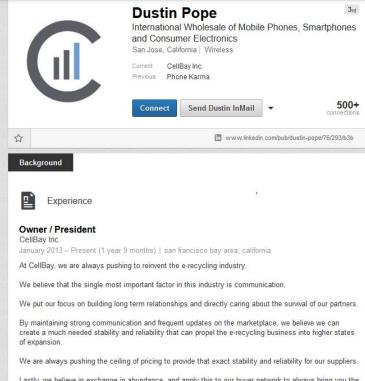
Exhibit 18. Photo with Hector (Hector did not want to pose for the photo with me!)





As follow up to this lead, I also found and emailed the CEO of CellBay, Dustin Pope, the organization that sent Jay the pricing.

Exhibit 19. LinkedIn Page for CEO of CellBay



Lastly, we believe in exchange in abundance, and apply this to our buyer network to always bring you the best possible product, with swift transactions and shipping methods.

Exhibit 20. Email to CEO of CellBay



Sara Baughn

Interested in CellBay's Business Model

To 'cellbayinc@gmail.com'

Hi Dustin,

I am a student at Temple University in Philadelphia's MBA program and our professor has given us a challenge project to research the secondhand cell phone market. We are conducting field work/research to learn about how phones are priced in the second hand market. I stumbled across cellBay through one of my interviews. Do you think you would have a few minutes to talk with me and help me better understand how your business works?

I appreciate your consideration!

Thanks,

Sara T. Baughn, BSBA, CPhT Director of Business Development

I also stopped in GameStop to better understand their system (Exhibit 21). The employee there pulled up their online system and typed in Apple iPhone 5. (Tried to video this but the camera wasn't on[®]) The program generated a way to click off if it was new, in good condition or was in poor condition. Then the system would generate the price that it would buy for in cash and showed a higher percentage for store credit.

Exhibit 22. Ad from Game Stop & 23. Pricing list posted

<section-header><section-header><text><text><text><image><text><text>

Electronics	Trade Value*	PowerUp Rewards Pro Trade Value**
iPad Air 16GB Wi-Fi	\$285.00	\$285.00
iPad Mini Retina 16GB Wi-Fi	\$210.00	\$210.00
iPad 4 16GB Wi-Fi	\$200.00	\$200.00
iPad Mini 32GB Wi-Fi	\$155.00	\$155.00
iPhone 4S 8GB AT&T	\$120.00	\$120.00
iPhone 5 32GB AT&T	\$210.00	\$210.00
iPhone 5S 32GB AT&T	\$290.00	\$290.00
iPod Classic Gen 6 80GB	\$40.00	\$40.00
iPod Touch Gen 5 16GB	\$95.00	\$95.00
LG G2 Verizon	\$95.00	\$95.00

Gazelle- Next I checked out Gazelle's online system, which also spit out am offer number based on certain criteria for the phone.

Exhibit 24. Screen shot of Gazelle's online price calculating tool

1. What shape is it in?				
Broken / Cracked	Good	Flawless		
Does not turn on or has serious physical damage	Normal signs of use	Looks like it's never been use		
missing buttons (power, home, ringer, and/or volume).				
		f wear. Your IPhone has no cracks or		
		or wear. Your iPhone has no cracks or		
	inger, and/or volume).			

Take advantage of today's pricing with time to get a new iPhone!

Notice this offer is only good until October 10th. This indicates the rapid price changes in the market.

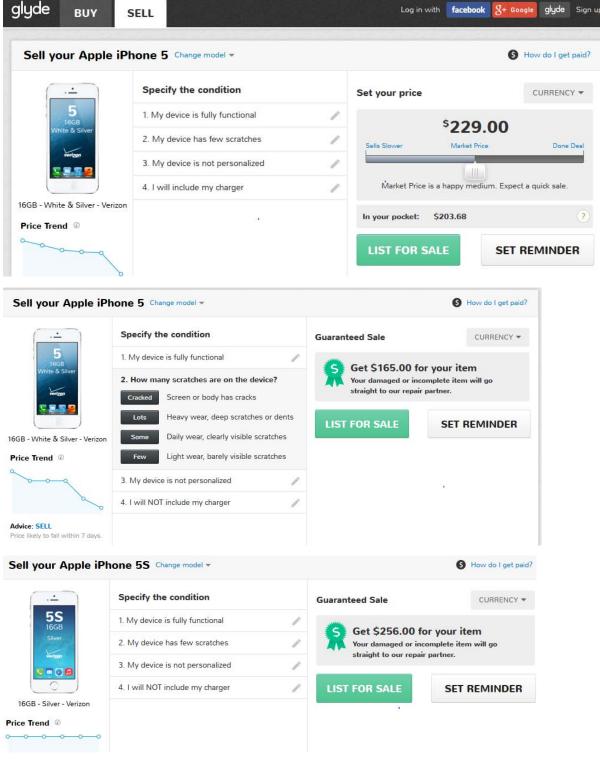
I followed up by submitting a question to their customer services to get more details on their pricing model.

Exhibit 25.	Request	for more	information	to	Gazelle	Support

Submit a question to our support team.	Find Answers
	Search &
First Name *	
Sara	Contact Us
Last Name *	
Baughn	Send Us A Question
Email Address *	
stbaughn@gmail.com	Live Chat
Home Phone	
Topic *	
Selling My Item to Gazelle	
Regarding	
Your Offer Price -	
Subject *	
Pricing Model	
Question *	
Hi there,	
I am doing research for a business school project on the second hand cell phone market. In your FA competitive offer for your item, we have invested in tools that use data like market demand, business competitive market value."	
I was wondering if you would please provide me with some more information on what these tools co an on-demand offer.	nsist of and how they create an algorithm for
Thanks for your consideration!	
Sara <u>Baughn</u>	
	I

Glyde- after Gazelle, I checked out Glyde, another player in the space. Glyde had a few more criteria they evaluated when setting the price. I observed that Glyde allows users to set prices some times and then other times quotes a price for guaranteed sales. The iPhone 5s I valued almost 100 dollars more than the regular iPhone 5.

Exhibit 25. - 28. Screenshots from various phones to buy or sell on Glyde.



BUY



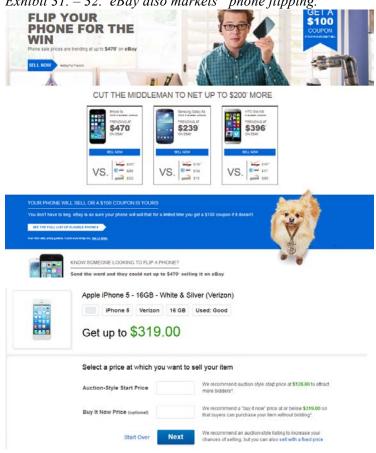
Exhibit 29. Email to Glyde support requesting more information on their algorithms

Response from Glyde support included in portfolio, Exhibit 30.

ت= Send	To Cc Subject	service@glyde.com Question about Pricing Model
l am re Your F. most r	AQs mentio	the second hand cell phone market for a project for business school. We are specifically looking at how prices are set in this market. On that "Each day we crunch the numbers from thousands of online sales to get the <u>Glyde</u> Market Price, a figure that gets you the Your item in a speedy timeframe." I was wondering if you could please provide some more information on how this algorithm works are used.
Thank	s for your c	onsideration!
Regard	ls,	

Sara T. Baughn, BSBA, CPhT

Exhibit 31. – 32. eBay also markets "phone flipping."



Here is a look at an analysis of various criteria used to price the phones in the secondhand market, from my research:

Criteria

Manufacturer (ie. Apple, Andriod) Model (ie. iPhone 5, iPhone 4s) Carrier (ie. Verizon, at&t, T-Mobile) Size of Phone (ie. 16 GB, 32 GB Condition (Broken, Good, Flawless) Phone Color Functions/Turns On? Scratches/Cracks? Personalization (yes/no) Charger included (yes/mo) Location

Gazelle	Glyde	iCracked	eBay
•	•	•	•
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