

Analysis of *The Office*

```
In [2]: import pandas as pd
```

```
In [3]: office_data = pd.read_csv("the_office_lines_scripts.csv")
```

```
In [15]: office_data.shape
```

```
Out[15]: (59909, 7)
```

```
In [5]: office_data.head()
```

```
Out[5]:
```

	id	season	episode	scene	line_text	speaker	deleted
0	1	1	1	1	All right Jim. Your quarterlies look very good...	Michael	False
1	2	1	1	1	Oh, I told you. I couldn't close it. So...	Jim	False
2	3	1	1	1	So you've come to the master for guidance? Is ...	Michael	False
3	4	1	1	1	Actually, you called me in here, but yeah.	Jim	False
4	5	1	1	1	All right. Well, let me show you how it's done.	Michael	False

How many characters are there? What are their names?

```
In [84]: total_number_of_line = len(office_data.speaker)
character_names = list(office_data.speaker.apply(lambda x: x.lower().capitalize))
num_of_characters = len(character_names)
print(f"There are {num_of_characters} characters, whose names are {character_names}")
```

There are 778 characters, whose names are ['Michael', 'Jim', 'Pam', 'Dwight', 'Jan', 'Michel', 'Todd packer', 'Phyllis', 'Stanley', 'Oscar', 'Angela', 'Kevin', 'Ryan', 'Man', 'Roy', 'Documentary crew member', 'Mr. brown', 'Toby', 'Kelly', 'Meredith', 'Travel agent', 'Man on phone', 'Everybody', 'Lonn y', 'Darryl', 'Teammates', 'Michael and dwight', 'Warehouse worker', 'Madg e', 'Worker', 'Packer', 'Katy', 'Guy at bar', 'Other guy at bar', 'Pam and j im', 'Employee', 'Chili's employee', 'Waitress', 'Manager', 'Kevin's compute r', 'Warehouse guy', 'Warehouse guys', 'Video', 'Man in video', 'Actor', 'Re dheaded actress', 'Mr. o'malley', 'Albiny', 'Pam's mom', 'Carol', 'Bill', 'E veryone', 'Crowd', 'Song', 'Dwight and michael', 'Sherri', 'Creed', 'Devon', 'Children', 'Kid', 'Vance refrigeration worker #1', 'Vance refrigeration wor ker #2', 'Hank the security guard', 'Ira', 'Ryan's voicemail', 'Master', 'Al yssa', 'Christian', 'Hostess', 'Michael and christian', 'Sadiq (it guy)', 'M ark', 'Improv teacher', 'Mary-beth', 'Girl acting pregnant', 'Actress', 'Mic hael and jim', 'Kevin & oscar', 'All', 'Liquor store clerk', 'Bob vance', 'P hyllis, meredith, michael, kevin', 'Captain jack', 'Brenda', 'Darryl and kat y', 'Jim and pam', 'Billy merchant', 'Doctor', 'Lab tech', 'Dana', 'Hooter's girls', 'Phyllis', 'Gil', 'Pam and others', 'Ed', 'Todd', 'Jim's voicemail', 'Women', 'Guy', 'Men', 'Group chant', 'All the men', 'Dwight and roy', 'Deli very man', 'Craig', 'Josh', 'David', 'Dan', 'Receptionist', 'Overhead', 'Spe aker', 'Jim and dwight', 'Melissa', 'Sasha', 'Abby', 'Jake', 'The kids', 'Ki ds', 'Miss trudy', 'Edward r. meow', 'Chet', 'Young michael', 'Delivery woma n', 'Delivery boy', 'Office staff', 'Store employee', 'Pam/jim', 'Linda', 'H ank', 'Sheriff', 'I.d. photographer', 'Photographer', 'Anglea', 'Female work er', 'Billy's girlfriend', 'Billy', 'Dealer', 'Bob', 'Meredith's vet', 'And y', 'Karen', 'Jerome bettis', 'Ted', 'Waiter', 'Jim, josh, and dwight', 'Eva n', 'Alan', 'Ryan and others', 'Hannah', 'Announcer', 'Pretzel guy', 'Cousin mose', 'Tony', 'Server', 'Girls', 'Kelly's mom', 'Kelly's father', 'Young ma n', 'Andy and jim', 'Mrs. kapoor', 'Mr. kapoor', 'M ichael', 'Dwight:', 'Mar tin', 'Male voice', 'Michael & dwight', 'Andy & michael', 'Chef', 'Woman at bar', 'Cindy', 'Second cindy', 'Other waitress', 'Andy and michael', 'Both', 'Someone', 'Harvey', 'Buyer', 'Kenny', 'Julius', 'Phone', 'Staples guy', 'La dy', 'Paris', 'Marcy', 'Ben franklin', 'Elizabeth', 'Priest', 'Uncle al', 'R andy', 'Unknown', 'College student', 'Business student #1', 'Business studen t #2', 'Business student #3', 'Woman', 'Artist', 'Student 1', 'Student 2', 'Student 3', 'Rachel', 'Dan gore', 'Bartender', 'Child', 'Hunter', 'Darry', 'Micheal', 'Larry', 'Chad lite', 'Jamie', 'Barbara', 'School official', 'Bar bara allen', 'Spanish teacher', 'Denise', 'Group', 'It tech guy', 'Nurse', 'Intern', 'Pediatrician', 'Robert dunder', 'Amy', 'Gps', 'Larry myers', 'Ex- client', 'Voice of thomas dean', 'Sandy', 'Dunmiff/sys', 'Dwightkschrute', 'Tech guy', 'Angels', 'Pizza guy', 'Voice #1 on phone', 'Voice #2 on phone', 'Micahel', 'Michae', 'Nick', 'Mose', 'Co-worker 1', 'Stanely', 'Micael', 'Vi kram', 'Co-worker 2', 'Co-worker 3', 'Mr. figaro', 'Oscar and stanley', 'Ad guy 1', 'Ad guy 2', 'David wallace', 'Andy, creed, kevin, kelly, darryl', 'A ndy, creed, kevin, kelly', 'Michael's ad', 'Rolando', 'Ben', 'Security guar d', 'Lester', 'Diane kelly', 'Diane', 'Deposition reporter', 'Council', 'Hun ter's cd', 'Officer 1', 'Officer 2', 'Officer', 'Neighbor', 'Wendy's phone o perator', 'Margaret', 'Coffee shop worker', 'Jan [on phone]', 'W.b. jones', 'Paul faust', 'Bill cress', 'Paul', 'Michael/dwight', 'Troy', 'Girl in clu b', 'Tall girl #1', 'All girls', 'Tall girl #2', 'Girl in 2nd club', 'Cleani ng lady', 'Michael and darryl', 'Phil maguire', 'Phil', 'Justin', 'Angela an d dwight', 'Maguire', 'Woman on mic', 'Graphics guy', 'Brad', 'Air force rec ruit', 'Holly', 'Woman over speakerphone', 'Vance refrigeration guy', 'Hol y', 'Co-workers', 'Ronnie', 'Professor', 'Friend', 'Jim9334 [screen name]', 'Receptionitis15 [screen name]', 'Jim9334', 'Receptionitis15', 'Michael & ho lly', 'Dight', 'Kendall', 'Michael [on phone]', 'Pam [on phone]', 'Hank [the security guard]', 'Guy in audience', 'Michael and holly', 'Michael, holly, a nd darryl', 'Tom', 'Pete', 'Holly & darryl', 'Holly & michael', 'Mother', 'A lex', 'Customer', 'Kevin & andy', 'Stanley & phyllis', 'Stewardess', 'Beth', 'Concierge', 'Marie', 'Guy at table', 'Concierge marie', 'Client', 'Dacvid w alalce', 'David wallcve', 'Dacvid wallace', 'Leo', 'Police officer 1', 'Poli ce officer 2', 'Guy buying doll', 'Rehab nurse', 'Everyone watching', 'Entir e prince family', 'Prince grandfather', 'Entire office', 'Prince', 'Prince g randdaughter', 'Prince grandmother', 'Prince son', 'Phyllis and creed', 'Law

yer', 'Cpr trainer', 'Rose', 'Jessica alba', 'Lily', 'Sam', 'Warehouse michael', 'Julia', 'A.j.', 'Phone salesman', 'Jim, pam, michael and dwight', 'Blood drive worker', 'Blood girl', 'Lynn', 'Blonde', 'Eric', 'Girl', 'Charles', 'Stephanie', 'Employees', 'Isaac', 'Angela and kelly', 'Supervisor', 'Michael', 'Nana', 'Chares', 'Old woman', 'Erin', 'Dwight and erin', 'Dwight and andy', 'Michael, pam & ryan', 'Secretary', 'Automated phone voice', 'Mr. schofield', 'Financial guy', 'Ty', 'Jessica', 'Vance refrigeration guy 1', 'Vance refrigeration guy 2', 'Vrg 1', 'Vrg 2', 'Rolph', 'Aj', 'Man from buffalo', 'Woman from buffalo', 'Dwight & andy', 'Female intern', 'Maurie', 'Dwight, jim & pam', 'Jim & pam', 'Megan', 'Gwenneth', 'Front desk clerk', 'Mr. halpert', 'Mema', 'Mr. beesly', 'Little girl', 'Penny', 'Isabel', 'Hotel employee', 'Hotel manager', 'Tom halpert', 'Pete halpert', 'Tom and pete', 'Pam's dad', 'Grotti', 'Andy and dwight', 'Credit card rep', 'Rep', 'Various', 'Keen a gifford', 'Helene', 'David wallace's secretary', 'Voice on cd player', 'Limo driver', 'Laurie', 'Registrar', 'Security', 'Woman in line', 'Man in line', 'Shareholder', 'Female shareholder', 'Second shareholder', 'Third shareholder', 'Fourth shareholder', 'O'keefe', 'Mikela', 'Students', 'Teacher', 'Lefevre', 'Zion', 'Deliveryman', 'Michael and erin', 'Daryl', 'Office', 'Kelly and erin', 'Matt', 'Computron', 'Fake stanley', 'Gabe', 'Andy & erin', 'Christian slater', 'Jo bennett', 'Jo', 'Jerry', 'Teddy wallace', 'Mrs. wallace', 'Teddy', 'Dwight, jim and michael', 'Policeman', 'Hospital employee', '(pam's mom) heleen', 'Kathy', 'Dale', 'Clark', 'Isabelle', 'D', 'Warehouse guy 1', 'Warehouse guy 2', 'Reid', 'Night cleaning crew', 'Meredith, creed, oscar and matt', 'Miichael', 'Julie', 'Hide', 'Bar manager', 'Bouncer', 'Girl at table', 'Cookie monster', 'Dwight.', 'Hayworth's waiter', 'Oscar's voice from the computer', 'Donna', 'Michael and donna', 'Mihael', 'Old lady', 'Glen', 'Gym instructor', 'Dwight and angela', 'Shane', 'Reporter', 'Realtor', 'Luke', 'Window treatment guy', 'Angel', 'Salesman', 'Usher', 'Shelby', 'Sweeney todd', 'Mexican man', 'Son', 'Nate', 'Employees except dwight', 'Astrid', 'Carroll', 'Carrol', 'Danny', 'Steve', 'Darryl and andy', 'Church congregation', 'Pastor', 'Female church member', 'Male church member', 'Female church member [to michael]', 'Doug [church member]', 'Doug', 'Mee-maw', 'Meema w', 'Carla', 'Jim's dad', 'Bus driver', 'Michael and andy', 'Another guy', 'Radio', 'Cece', 'Tv', 'Meridith', 'Robotic voice', 'Ryan and michael', 'Phyllis', 'Dwight & nate', 'Passer-by', 'Bass player', 'Justine', 'Jada', 'Robert', 'Darryl', 'Member', 'Video michael', 'Bookstore employee', 'Dj', 'David brent', 'Older guy', 'Phyllis, stanley, dwight', 'Younger guy', 'Older woman', 'Professor powell', 'Ryan and kelly', 'Helen', 'Attendant', 'Hot dog guy', 'Cell phone sales person', 'Boom box', 'Andy and erin', 'Holly's mom', 'Holly's dad', 'Deangelo', 'Deangelo/michael', 'Denagelo', 'Darryl's sister', 'Audience', 'Together', 'Erin and kelly', 'Abe', 'Rory', 'Deagnelo', 'Jordan', 'Dwight [on phone]', 'Mose [on phone]', 'All but oscar', 'Darryl and angela', 'Fred henry', 'Fred', 'Warren buffett', 'Warren', 'Robert california', 'Merv bronte', 'Merv', 'Nellie bertram', 'Nellie', 'Finger lakes guy', 'Pam as fourth-biggest client', 'Pam as ninth-biggest client', 'Darryl & oscar', 'Tattoo artist', 'Female applicant', 'Male applicant 1', 'Male applicant 2', 'Gideon', 'Bruce', 'Dwight, erin, jim & kevin', 'Walter', 'Ellen', 'Walter jr', 'Andy & walter', 'Walter & walter jr', 'Erin's cell phone', 'Bert', 'Gabe/kelly/toby', 'Andy/pam', 'Andy/stanley', 'Val', 'Warehouse crew', 'Cathy', 'Offscreen', 'Curtis', 'Drummer', 'Pam and kelly', 'Old man', 'Andy and darryl', 'Darryl and kevin', 'Park ranger', 'Chelsea', 'Archivist', 'Narrator', 'Soldier', 'Amanda', 'Susan', 'Andy/oscar', 'Bob's secretary', 'Mrs. california', 'Host', 'Queerenstein bears', 'Oscar's friend', 'Stu', 'Stonewall host', 'Meredith & kelly', 'Einsteins', 'Senator lipton', 'Ernesto', 'Officer foley', 'Andy, darryl & officer foley', 'Saleswoman', 'Emergency operator', 'Paramedic', 'Donna muraski', 'Wally amos', 'Angela/pam', 'Brandon', 'Blogger', 'Blogger 2', 'Lady blogger', 'Patty', 'Others', 'Elderly woman', 'Irene', 'Alonzo', 'Glenn', 'Erin and irene', 'Kevin & meredith', 'Lauren', 'Party guests', 'Magician', 'Ravi', 'Robert & creed', 'Wrangler', 'Senator', 'Vet', 'Harry', 'Mr. ramish', 'Calvin', 'Off-camera', 'Rafe', 'Fake jim', 'Voicemail', 'Nellie and pam', 'Group: dunder mifflin!\nandy: andy bernard presents: summer softball epic fails! [kevin swings bat on screen, fart noise follows] fail. [repeats] fail', '[repeats]\nandy: fail', '[clark and pete are shown on screen]\nvideo andy: hey, i'm pete, puberty is such a drag, man. an

d i'm clark! i like to eat toilet paper. [clark and pete wave at camera] we fail! [video shows memorial of jerry", 'Phyllis, kevin & stanley', 'Hct', 'Hct member #1', 'Hct member #2', 'Broccoli rob', 'Businessman #1', 'Businessman #2', 'Businessman #3', 'Hct member #3', 'White', 'Boat guy', 'Walt jr.', 'Senator liptop', 'Guys in breakroom', 'Business partner', 'Molly', 'Colin', 'Trevor', 'Julius irving', 'New instant message', 'Suit store father', 'Athlead employee', 'Dennis', 'Wade', 'Suit store son', 'Female athlead employee', '3rd athlead employee', '4th athlead employee', 'Co-worker', 'Co-worker #2', 'Mr. romanko', 'Dance teacher', 'Ballerinas', 'Parent in audience', 'Parent in audience #2', 'Parent in audience #1', 'Investor', 'Lonnie', 'Fast food worker', 'Drive thru customer', 'Brian', 'Cameraman', 'Rolf', 'Gabor', 'Zeke', 'Melvina', 'Wolf', 'Sensei ira', 'Pam & dwight', 'Frank', 'Party announcer', 'Party guest', 'Party photographer', 'Party waiter', 'Nail stylist 1', 'Nail stylist 2', 'Nail manager', 'Shirley', 'Athlead coworker', 'Roger', 'Alice', 'Oscar's computer', 'Jeb', 'German minister', 'Fannie', 'Henry', 'Esther', 'Aunt shirley', 'Cameron', 'Promo voice', 'Ryan howard', 'Mr. ruger', 'Promo announcer', 'Ruger sister 1', 'Salesmen', 'Ruger sister 2', 'Angela & oscar', 'Reporter #1', 'Reporter #2', 'Mrs. davis', 'Phillip', 'Carla fern', 'Director', 'Producer', 'Bob vance, vance refrigeration', 'Production assistant', 'Sensei', 'Philip', 'Check-in guy', 'Casey', 'Mark mcgrath', 'Jim & dwight', 'Camera crew', 'People in line', 'Santigold', 'Aaron Rodgers', 'Clay aiken', 'Malcolm', 'Casey dean', 'Bill hader', 'Seth mayers', 'Dakota', 'Stripper', 'Jakey', 'Man 1', 'Woman 1', 'Woman 2', 'Man 2', 'Moderator', 'Man 3', 'Woman 3', 'Woman 4', 'Joan', 'Minister', 'Carol stills']

For each character, find out who has the most lines across all episodes

```
In [14]: from collections import Counter
characters_to_num_of_lines = Counter(office_data.speaker)
maximum_num_of_lines = max(characters_to_num_of_lines.values())
for character, num_of_lines in characters_to_num_of_lines.items():
    if num_of_lines == maximum_num_of_lines:
        print(f"{character} has the most lines across all episodes, with {ma
```

Michael has the most lines across all episodes, with 12140 number of lines

What is the average of words per line for each character?

```
In [36]: from collections import defaultdict
character_to_lines = defaultdict(list)
office_data.apply(lambda x: character_to_lines[x.speaker].append(x.line_text))
character_to_avg_words_per_line = defaultdict(lambda : 0)
for character, lines in character_to_lines.items():
    if len(lines) == 0:
        raise "error: lines of len 0"
    # rounded to integer
    character_to_avg_words_per_line[character] = int(sum(map(lambda x: len(x
```

```
In [37]: list(character_to_avg_words_per_line.items())[:5]
```

```
Out[37]: [('Michael', 77), ('Jim', 52), ('Pam', 49), ('Dwight', 65), ('Jan', 55)]
```

What is the most common word per character?

```
In [38]: character_to_word_freq = dict()
punctuations = '!'()-[]{};:'"\,<>./?@$%^&*~'''
```

```
for character, lines in character_to_lines.items():
    all_lines = " ".join(lines)
    for punc in punctuations:
        all_lines = all_lines.replace(punc, " ")
    word_freq = Counter(all_lines.split())
    character_to_word_freq[character] = word_freq
```

```
In [41]: character_to_most_common_word = dict()
for character, word_freq in character_to_word_freq.items():
    maximum_freq = max(word_freq.values())
    most_common_word = None
    # assume only one most common word
    for word, freq in word_freq.items():
        if freq == maximum_freq:
            most_common_word = word
            break
    if not most_common_word:
        raise "error: not found most common word"
    character_to_most_common_word[character] = most_common_word
```

```
In [42]: character_to_most_common_word
```

```
Out[42]: {'Michael': 'I',
          'Jim': 'I',
          'Pam': 'I',
          'Dwight': 'I',
          'Jan': 'I',
          'Michel': 'I',
          'Todd Packer': 'I',
          'Phyllis': 'I',
          'Stanley': 'I',
          'Oscar': 'I',
          'Angela': 'I',
          'Kevin': 'I',
          'Ryan': 'I',
          'Man': 'I',
          'Roy': 'I',
          'Documentary Crew Member': 'you',
          'Mr. Brown': 'you',
          'Toby': 'I',
          'Kelly': 'I',
          'Meredith': 'I',
          'Travel Agent': 'know',
          'Man on Phone': 'the',
          'Everybody': 'Happy',
          'Lonny': 's',
          'Darryl': 'I',
          'Teammates': 'Yeah',
          'Michael and Dwight': 'on',
          'Warehouse worker': 'Roy',
          'Madge': 'Hey',
          'Worker': 'I',
          'Packer': 'I',
          'Warehouse Worker': 'back',
          'Katy': 'I',
          'Guy at bar': 'Sing',
          'Other Guy at Bar': 'We',
          'Guy At Bar': 'Sing',
          'Pam and Jim': 'Dundies',
          'Employee': 'to',
          'Chili's Employee': 'not',
          'Waitress': 'don',
          'Manager': 'on',
          'Kevin's computer': 'monkey',
          'Warehouse Guy': 'No',
          'Warehouse guy': 'Little',
          'Warehouse guys': 'kissing',
          'Video': 'the',
          'Man in Video': 'a',
          'Actor': 'Hey',
          'Redheaded Actress': 'Hey',
          'Mr. O'Malley': 'I',
          'Albiny': 'I',
          'Pam's Mom': 'Oh',
          'Carol': 'I',
          'Bill': 's',
          'Everyone': 'Oh',
          'Crowd': 'clapping',
          'song': 'Everybody',
          'Song': 'Everybody',
          'Dwight and Michael': 'ha',
          'Sherri': 'the',
          'Creed': 'I',
          'Devon': 'you',
          'Children': 'ringing',
          'Kid': 'I',
```

'Vance Refrigeration Worker #1': 'a',
'Vance Refrigeration Worker #2': 'ass',
'Hank the Security Guard': 'is',
'Ira': 'a',
"Ryan's Voicemail": 'new',
'Master': 'Dwight',
'Alyssa': 'Hi',
'Christian': 'I',
'Hostess': 'This',
'Michael and Christian': 'baby',
'Sadiq (IT guy)': 'you',
'Mark': 'I',
'Improv Teacher': 'you',
'Mary-Beth': 'I',
'Girl acting Pregnant': 'I',
'Actress': 'Again',
'Michael and Jim': 'we',
'Kevin & Oscar': 'One',
'All': 'the',
'Liquor Store Clerk': 'It',
'Jim': 'Okay',
'Bob Vance': 's',
'Phyllis, Meredith, Michael, Kevin': 'One',
'Captain Jack': 'I',
'Brenda': 'I',
'Darryl and Katy': 'Snorkel',
'Jim and Pam': 'Oh',
'Billy Merchant': 'I',
'Doctor': 'the',
'Lab Tech': 'Stop',
'Dana': 'you',
"Hooter's Girls": 'You',
'Phylis': 'Angela',
'Gil': 's',
'Pam and others': 'mm',
'Ed': 'your',
'Todd': 'I',
"Jim's voicemail": 'You',
'Women': 'of',
'Guy': 'I',
'Men': 'generalized',
'Group chant': 'Michael',
'All the Men': 'Generalized',
'Dwight and Roy': 'at',
'Delivery man': 'you',
'Craig': 'I',
'Josh': 'I',
'David': 'you',
'Dan': 'And',
'Receptionist': 'you',
'Overhead': 'I',
'Speaker': 'Dwight',
'Jim and Dwight': 'in',
'Melissa': 'I',
'Sasha': 'you',
'Abby': 'I',
'Jake': 'I',
'The Kids': 'I',
'Kids': 'Ewww',
'Miss Trudy': 'TV',
'Edward R. Meow': 'you',
'Chet': 'My',
'Young Michael': 'I',
'Delivery Woman': 'Hi',

'Delivery Boy': 'Uh',
'Office Staff': 'Happy',
'Store Employee': 'Ma',
'Pam/Jim': 'in',
'Linda': 'a',
'Hank': 'I',
'Sheriff': 'you',
'I.D. Photographer': 'Off',
'Photographer': 'you',
'Anglea': 'it',
'Female worker': 'Okay',
'Billy's Girlfriend': 'I',
'Billy': 's',
'Dealer': 'is',
'Bob': 'you',
'Meredith's Vet': 'Hey',
'Andy': 'I',
'Karen': 'I',
'Jerome Bettis': 'All',
'Ted': 'I',
'Waiter': 'you',
'Jim, Josh, and Dwight': 'Hi',
'Evan': 'you',
'Alan': 'to',
'Ryan and others': 's',
'Hannah': 's',
'Announcer': 'the',
'Pretzel guy': 'chocolate',
'Cousin Mose': 'Bye',
'Tony': 'I',
'Server': 'It',
'Girls': 'laugh',
'Kelly's Mom': 'a',
'Kelly's Father': 'you',
'Young Man': 'Is',
'Andy and Jim': 'sing',
'Mrs. Kapoor': 'No',
'Mr. Kapoor': 'nods',
'Michael': 'Wallace',
'Dwight': 'closed',
'Martin': 'I',
'Male voice': 'thank',
'Michael & Dwight': 'in',
'Andy & Michael': 'oh',
'Chef': 's',
'Woman at bar': 'I',
'Cindy': 'I',
'Second Cindy': 'I',
'Other waitress': 'about',
'Andy and Michael': 'a',
'Both': 'the',
'Someone': 's',
'Harvey': 'you',
'Buyer': 'I',
'Kenny': 's',
'Julius': 'you',
'Phone': 'you',
'Staples Guy': 'You',
'Michael': 'me',
'Lady': 'the',
'Paris': 'I',
'Marcy': 's',
'Ben Franklin': 'the',
'Elizabeth': 'I',

'Priest': 'And',
'Uncle Al': 'I',
'Randy': 'a',
'Unknown': 'She',
'College Student': 'Dude',
'Business Student #1': 'in',
'Business Student #2': 'a',
'Business Student #3': 'How',
'Woman': 'I',
'Artist': 'Thanks',
'Student 1': 'How',
'Student 2': 'question',
'Student 3': 'your',
'Rachel': 'I',
'Dan Gore': 'No',
'Bartender': 'you',
'Child': 'I',
'Hunter': 'Jan',
'Darry': 'It',
'Micheal': 'the',
'Larry': 'please',
'Chad Lite': 'uh',
'Jamie': 'Andy',
'Barbara': 'I',
'School Official': 'with',
'Barbara Allen': 'I',
'Spanish Teacher': 'I',
'Denise': 'you',
'Group': 'Yeah',
'IT Tech Guy': 'to',
'Nurse': 'you',
'Intern': 'a',
'Pediatrician': 'a',
'Robert Dunder': 'I',
'Amy': 'I',
'GPS': 'Proceed',
'Larry Myers': 'I',
'Ex-client': 'I',
'Voice of Thomas Dean': 'I',
'sAndy': 'Okay',
'DunMiff/sys': 'on',
'DwightKSchrute': 'on',
'Tech Guy': 'the',
'Angels': 'Okay',
'Pizza guy': 'that',
'Voice #1 on phone': 'Hey',
'Voice #2 on phone': 'Yeah',
'Micahel': 'this',
'Michae': 't',
'Nick': 'the',
'Mose': 'I',
'Co-Worker 1': 'Or',
'Stanely': 'on',
'Micael': 'No',
'Vikram': 'you',
'Co-Worker 2': 'you',
'Co-Worker 3': 'Really',
'Mr. Figaro': 'Lipophedrine',
'Oscar and Stanley': 'You',
'Ad guy 1': 's',
'Ad guy 2': 'to',
'David Wallace': 'to',
'Andy, Creed, Kevin, Kelly, Darryl': 'Call',
'Andy, Creed, Kevin, Kelly': 'people',

'Michael's Ad': 'a',
'Rolando': 'on',
'Ben': 't',
'Security guard': 'in',
'Lester': 'you',
'Diane Kelly': 'you',
'Diane': 'that',
'Deposition Reporter': 'to',
'Council': 'he',
'Hunter's CD': 'right',
'Officer 1': 'a',
'Officer 2': 'you',
'Officer': 'Yes',
'Neighbor': 'She',
'Wendy's phone operator': 'Wendy',
'Margaret': 'I',
'Coffee shop worker': 'Michael',
'Jan [on phone]': 'Michael',
'W.B. Jones': 'Let',
'Paul Faust': 'Whose',
'Bill Cress': 'Ohh',
'Paul': 'have',
'Michael/Dwight': 'in',
'Troy': 'I',
'Girl in Club': 'I',
'Tall Girl #1': 'to',
'All Girls': 'Wooo',
'Tall Girl #2': 'We',
'Girl in 2nd club': 'do',
'Cleaning lady': 'Ohh',
'Michael and Darryl': 'simultaneously',
'Phil Maguire': 'you',
'Phil': 'I',
'Justin': 'I',
'Angela and Dwight': 'silently',
'Maguire': 'Good',
'Woman on mic': 'will',
'Graphics guy': 'I',
'Brad': 'I',
'Air Force recruiter': 'Justin',
'Holly': 'I',
'Woman over speakerphone': 'Antigravity',
'Vance Refrigeration guy': 'Hey',
'Holy': 'I',
'Co-workers': 'Toby',
'Ronnie': 'Dunder',
'Professor': 'the',
'Friend': 't',
'JIM9334 [screen name]': 'Let',
'Receptionitis15 [screen name]': 'What',
'JIM9334': 'll',
'Receptionitis15': 'Where',
'Michael & Holly': 'Let',
'Dight': 'Michael',
'Kendall': 'the',
'Michael [on phone]': 'Paaam',
'Pam [on phone]': 'I',
'Man on phone': 'the',
'Hank [the security guard]': 'blues',
'Guy in audience': '140',
'Michael and Holly': 'Life',
'Michael, Holly, and Darryl': 'you',
'Tom': 'you',
'Pete': 'I',

'Holly & Darryl': 'in',
'Holly & Michael': 'both',
'Mother': 'you',
'Alex': 'you',
'Customer': 'I',
'Kevin & Andy': 'Ooooh',
'Stanley & Phyllis': 'continue',
'Stewardess': 'I',
'Beth': 'to',
'Concierge': 'the',
'Marie': 'you',
'Guy at table': 'What',
'Concierge Marie': 'Mmm',
'Client': 'with',
'Dacvid Walalce': 'hey',
'David Wallcve': 'Michael',
'Dacvid Wallace': 'Michael',
'Leo': 'you',
'Vance Refrigeration Guy': 's',
'Police Officer 1': 'a',
'Police Officer 2': 'Sir',
'Guy buying doll': '120',
'Rehab Nurse': 'Can',
'Everyone watching': 'Oh',
'Entire Prince family': 'Hello',
'Prince Grandfather': 'I',
'Entire office': 'Hot',
'Prince': 'Grandfather',
'Prince Granddaughter': 'Grandma',
'Prince Grandmother': 'Don',
'Prince Son': 'No',
'Phyllis and Creed': 'Ahhhh',
'Lawyer': 'a',
'CPR trainer': 'A',
'CPR Trainer': 'It',
'Rose': 'to',
'Jessica Alba': 'movie',
'Lily': 'you',
'Sam': 'I',
'Warehouse Michael': 'Michael',
'Julia': 'I',
'A.J.': 'laughs',
'Phone Salesman': 'I',
'Jim, Pam, Michael and Dwight': 'Ayyyy',
'Blood Drive Worker': 'You',
'Blood Girl': 'I',
'Lynn': 'I',
'Blonde': 'I',
'Eric': 'I',
'Girl': 'to',
'Charles': 'I',
'Stephanie': 'David',
'Employees': 'Michael',
'Isaac': 'the',
'Angela and Kelly': 'He',
'Supervisor': 'Back',
'Michal': 'Vikram',
'Nana': 'I',
'Chares': 'Okay',
'Old Woman': 'We',
'Erin': 'I',
'Dwight and Erin': 'West',
'Dwight and Andy': 'me',
'Michael, Pam & Ryan': 'you',

'Secretary': 'in',
'Automated phone voice': 'If',
'Mr. Schofield': 'you',
'Financial Guy': 'you',
'Ty': 's',
'Jessica': 'I',
'Vance Refrigeration Guy 1': 'There',
'Vance Refrigeration Guy 2': 'Where',
'VRG 1': 'the',
'VRG 2': 'What',
'Rolph': 's',
'AJ': 'I',
'Man from Buffalo': 'over',
'Woman from Buffalo': 'David',
'Dwight & Andy': 'Parkour',
'Female Intern': 'hands',
'Female intern': 'confused',
'Maurie': 'you',
'Dwight, Jim & Pam': 'stare',
'Jim & Pam': 'look',
'Megan': 's',
'Gwenneth': 'Definitely',
'Front Desk Clerk': 'I',
'Mr. Halpert': 'So',
'Mema': 'I',
'Mr. Beesly': 'you',
'Little Girl': 'the',
'Penny': 'I',
'Isabel': 'I',
'Hotel Employee': 'I',
'Hotel Manager': 'and',
'Pam's mom': 'Oh',
'Tom Halpert': 'Excuse',
'Pete Halpert': 'Sisters',
'Tom and Pete': 'laughing',
'Pam's dad': 'Hey',
'Grotti': 'you',
'Andy and Dwight': 'the',
'Credit card rep': 'Hello',
'Rep': 'you',
'Various': 'out',
'Keena Gifford': 'the',
'Helene': 'I',
'David Wallace's Secretary': 'I',
'Voice on CD player': 'to',
'Limo Driver': 'seats',
'Laurie': 'you',
'Registrar': 'of',
'Security': 'No',
'Woman in line': 'just',
'Man in line': 'Sure',
'Shareholder': 'You',
'Female Shareholder': 'Limousine',
'Second Shareholder': 'You',
'Third Shareholder': 'You',
'Fourth Shareholder': 'How',
'O'Keefe': 'the',
'Mikela': 'I',
'Students': 'What',
'Teacher': 'you',
'Lefevre': 'to',
'Zion': 'I',
'Deliveryman': 'Hi',
'Michael and Erin': 'What',

'Daryl': 'I',
'Office': 'Aw',
'Kelly and Erin': 'on',
'Matt': 'I',
'Computron': 'to',
'Fake Stanley': 'Hi',
'Gabe': 'I',
'Andy & Erin': 'the',
'Christian Slater': 'Sabre',
'Jo Bennett': 'to',
'Jo': 'I',
'Jerry': 'you',
'Teddy Wallace': 'Huh',
'Mrs. Wallace': 'you',
'Teddy': 'Suck',
'Dwight, Jim and Michael': 'Here',
'Policeman': 'Pull',
'Hospital employee': 'you',
'(Pam's mom) Heleen': 'Hi',
'Kathy': 's',
'Dale': 'Hi',
'Clark': 'I',
'Isabelle': 'I',
'D': 'the',
'Warehouse guy 1': 'We',
'Warehouse guy 2': 'See',
'Reid': 'to',
'Night cleaning crew': 'Sorry',
'Meredith, Creed, Oscar and Matt': 'cheering',
'Miichael': 'Thank',
'Julie': 'I',
'Hide': 'I',
'Bar Manager': 'you',
'Bouncer': 'We',
'Girl at table': 'Hi',
'Cookie Monster': 'Kevin',
'Dwight.': 'Hello',
'Hayworth's waiter': 'Here',
'Oscar's voice from the computer': 'I',
'Donna': 'I',
'Michael and Donna': 'indistinct',
'Mihael': 'What',
'Old lady': 'Look',
'Glen': 'I',
'Gym Instructor': 'me',
'Gym instructor': 're',
'Dwight and Angela': 'Joint',
'Shane': 's',
'Reporter': 'the',
'Realtor': 'phone',
'Luke': 'I',
'Window treatment guy': 'I',
'Angel': 'Please',
'Salesman': 'I',
'Usher': 'Excuse',
'Shelby': 'you',
'Sweeney Todd': 'the',
'Mexican Man': 'speaking',
'Son': 'We',
'Nate': 'I',
'Employees except Dwight': 'No',
'Astrid': 'Mommy',
'Carroll': 'you',
'Carrol': 'I',

'Danny': 'I',
'Steve': 'Michael',
'Darryl and Andy': 'singing',
'Church congregation': 'singing',
'Pastor': 'to',
'Female church member': 'for',
'Male church member': 'to',
'Female church member [to Michael]': 'Good',
'Doug [church member]': 'I',
'Doug': 'I',
'Mee-Maw': 'I',
'MeeMaw': 'I',
'Carla': 'you',
'Jim's Dad': 'Jim',
'Bus driver': 'stop',
'Michael and Andy': 'Stop',
'Another guy': 'bus',
'Radio': 'Nordquist',
'Cece': 'No',
'TV': 'And',
'Meridith': 'Drama',
'Robotic Voice': 'WUPHF',
'Ryan and Michael': 'WUPHF',
'Phylliss': 'Oh',
'Dwight & Nate': 'Pam',
'Passer-by': 'I',
'Bass Player': 'Hi',
'Justine': 'She',
'Jada': 'Merry',
'Robert': 'I',
'Darrly': 'handing',
'Member': 'It',
'Video Michael': 'I',
'Bookstore employee': 'you',
'DJ': 'you',
'David Brent': 'a',
'Older guy': 'I',
'Phyllis, Stanley, Dwight': 'Oooh',
'Younger Guy': 'like',
'Older Woman': 'I',
'Professor Powell': 'Um',
'Ryan and Kelly': 'I',
'Helen': 's',
'Attendant': 'it',
'Hot Dog Guy': 'I',
'Cell Phone Sales Person': 'Sure',
'Boom Box': 'The',
'Andy and Erin': 'bursting',
'Holly's Mom': 's',
'Holly's Dad': 'on',
'Deangelo': 'I',
'Deangelo/Michael': 'in',
'Denagelo': 'whispering',
'Darryl's sister': 'holds',
'DeAngelo': 'I',
'Audience': 'Speech',
'Together': 'It',
'Erin and Kelly': 'And',
'abe': 'I',
'Rory': 'I',
'DeAgnelo': 'with',
'Jordan': 'I',
'Dwight [on phone]': 'Mose',
'Mose [on phone]': 'Aaaaahhhhh',

'All but Oscar': 'under',
'Darryl and Angela': 'Yes',
'Fred Henry': 'I',
'Fred': 'I',
'Warren Buffett': 'Can',
'Warren': 'I',
'Robert California': 'the',
'Merv Bronte': 'the',
'Merv': 'I',
'Nellie Bertram': 'First',
'Nellie': 'I',
'Finger Lakes Guy': 'I',
'Pam as fourth-biggest client': 'a',
'Pam as ninth-biggest client': 'paper',
'Darryl & Oscar': 'Let',
'Tattoo Artist': 'you',
'Female Applicant': 'Your',
'Male Applicant 1': 'Wait',
'Male Applicant 2': 'Like',
'Gideon': 'a',
'Bruce': 'Made',
'Dwight, Erin, Jim & Kevin': 'Dwight',
'Walter': 'you',
'Ellen': 'were',
'Walter Jr': 'I',
'Andy & Walter': 'to',
'Walter & Walter Jr': 'you',
'Erin's Cell Phone': 'If',
'Bert': 'a',
'Gabe/Kelly/Toby': 'bones',
'Andy/Pam': 'time',
'Andy/Stanley': 'singing',
'Val': 'I',
'Warehouse Crew': 'First',
'Cathy': 'I',
'Offscreen': 'Good',
'Curtis': 'Yeah',
'Drummer': 'Go',
'Pam and Kelly': 'With',
'Old Man': 'you',
'Andy and Darryl': 'Oh',
'Darryl and Kevin': 'And',
'Park Ranger': 'that',
'Chelsea': 'taps',
'Archivist': 'you',
'Narrator': 'the',
'Soldier': 'I',
'Amanda': 'the',
'Susan': 'I',
'Andy/Oscar': 'it',
'Bob's Secretary': 'just',
'Mrs. California': 'This',
'Host': 'the',
'Queerenstein Bears': 'Whoo',
'Oscar's friend': 'Whoo',
'Stu': 'Grab',
'Stonewall Host': 'Kevin',
'Meredith & Kelly': 'One',
'Einsteins': 'Whoo',
'Senator Lipton': 's',
'Ernesto': 'pulls',
'Officer Foley': 'that',
'Andy, Darryl & Officer Foley': 'mill',
'Saleswoman': 'What',

'Emergency Operator': 'Sir',
 'Paramedic': 'You',
 'Donna Muraski': 'her',
 'Wally Amos': 'aloha',
 'Angela/Pam': 'Unbelievable',
 'Brandon': 'you',
 'Blogger': 'Yeah',
 'Blogger 2': 'This',
 'Lady Blogger': 'Patty',
 'Patty': 'Yes',
 'Old Lady': 'and',
 'Others': 'Yeah',
 'Elderly Woman': 'rises',
 'Irene': 'you',
 'Alonzo': 'Good',
 'Glenn': 's',
 'Erin and Irene': 'screaming',
 'Kevin & Meredith': 'in',
 'Lauren': 'Andy',
 'Party guests': 'it',
 'Magician': 'you',
 'Ravi': 'you',
 'Robert & Creed': 'in',
 'Wrangler': 'around',
 'Senator': 'I',
 'Vet': 'to',
 'Harry': 'you',
 'Mr. Ramish': 'me',
 'Calvin': 't',
 'Off-camera': 'you',
 'Rafe': 'Iceman',
 'Fake Jim': 'I',
 'Voicemail': 'Please',
 'Nellie and Pam': 'giggling',
 'Group: Dunder Mifflin!\nAndy: Andy Bernard presents: Summer Softball Epic Fails! [Kevin swings bat on screen, fart noise follows] Fail. [repeats] Fail': 'Kevin',
 '[repeats]\nAndy: Fail': 'Oscar',
 "[Clark and Pete are shown on screen]\nVideo Andy: Hey, I'm Pete, puberty is such a drag, man. And I'm Clark! I like to eat toilet paper. [Clark and Pete wave at camera] We fail! [Video shows memorial of Jerry": 'Andy',
 'Phyllis, Kevin & Stanley': 'Pies',
 'HCT': 'singing',
 'HCT Member #1': 'Did',
 'HCT Member #2': 'I',
 'Broccoli Rob': 'I',
 'Businessman #1': 'So',
 'Businessman #2': 'the',
 'Businessman #3': 'You',
 'HCT Member #3': 'I',
 'White': 'Or',
 'Boat Guy': 'you',
 'Walt Jr.': 'I',
 'Senator Liptop': 'I',
 'Guys in breakroom': 'laughter',
 'Business partner': 'on',
 'Molly': 'I',
 'Colin': 'it000s',
 'Trevor': 'I',
 'Julius Irving': 'I',
 'New Instant Message': 'Stone',
 'Suit Store Father': 'son',
 'Athlead Employee': 'the',
 'Dennis': '000And',

'Wade': 'Okay',
'Suit Store Son': 'you',
'Female Athlead Employee': 'Science',
'3rd Athlead Employee': 'I',
'4th Athlead Employee': 'I000m',
'Co-worker': 'Jim',
'Co-worker #2': 'Uh',
'Mr. Romanko': 'I',
'Dance Teacher': 'Ladies',
'Ballerinas': 'One',
'Parent in Audience': 'Really',
'Parent in audience #2': 'You000re',
'Parent in audience #1': 'Yes',
'Investor': 'Listen',
'Lonnie': 'Hey',
'Fast Food Worker': 'And',
'Drive Thru Customer': 'Go',
'Brian': 'you',
'Cameraman': 'Brian',
'Rolf': 'I',
'Gabor': 'I',
'Zeke': 'the',
'Melvina': 'to',
'Wolf': 'I',
'Sensei Ira': 'I000m',
'Pam & Dwight': 'laughs',
'Frank': 'You',
'Party Announcer': 'and',
'Party Guest': 'You',
'Party Photographer': 'to',
'Party Waiter': 'Sean',
'Nail stylist 1': 'Oh',
'Nail stylist 2': 'to',
'Nail manager': 'No',
'Shirley': 's',
'Athlead Coworker': 'Hey',
'Roger': 'No',
'Alice': 'to',
'Oscar's Computer': 'My',
'Jeb': 'a',
'German Minister': 'to',
'Fannie': 'I',
'Henry': 'Dwight',
'Esther': 'the',
'Aunt Shirley': 'you',
'Cameron': 'I',
'Promo Voice': 'The',
'Ryan Howard': 'I',
'Mr. Ruger': 'you',
'Promo Announcer': 'Speaks',
'Ruger Sister 1': 'That',
'Salesmen': 's',
'Ruger Sister 2': 'We',
'Angela & Oscar': 'Hi',
'Reporter #1': 'gay',
'Reporter #2': 'Question',
'Mrs. Davis': 'on',
'Phillip': 'Mama',
'Carla Fern': 'you',
'Director': 'the',
'Producer': 'Yeah',
'Bob Vance, Vance Refrigeration': 'You',
'Production Assistant': 'So',
'Sensei': 'I',

```

'Philip': 'Mama',
'Check-in guy': 'the',
'Casey': 'you',
'Mark McGrath': 'you',
'Jim & Dwight': 'Sea',
'Camera Crew': 'Okay',
'People in line': 'Oh',
'Santigold': 'What',
'Aaron Rodgers': 'you000re',
'Clay Aiken': 'not',
'CameraMan': 'We000re',
'Malcolm': 'I',
'Casey Dean': 'You',
'Bill Hader': 'crying',
'Seth Meyers': 'be',
'Dakota': 'Hi',
'Stripper': 'I',
'Jakey': 'or',
'Man 1': 'How',
'Woman 1': 'Jim',
'Woman 2': 'I',
'Man 2': 'Pam',
'Moderator': 'on',
'Man 3': 'you',
'Woman 3': 'I',
'Woman 4': 'how',
'Joan': 'I',
'Minister': 'the',
'Carol Stills': 'Oh'}

```

Number of episodes where the character does not have a line, for each character

```

In [45]: character_to_episodes = defaultdict(set)
total_episodes = set()
office_data.apply(lambda x: character_to_episodes[x.speaker].add((x.season,
office_data.apply(lambda x: total_episodes.add((x.season, x.episode)), axis=

num_total_episodes = len(total_episodes)
character_to_num_of_no_line_episodes = dict()
for character, episodes in character_to_episodes.items():
    character_to_num_of_no_line_episodes[character] = num_total_episodes - 1

```

```

In [47]: num_total_episodes
# remark: In fact, there are 201 episodes
# the data is probably problematic

```

Out[47]: 186

```

In [46]: character_to_num_of_no_line_episodes

```

```
Out[46]: {'Michael': 49,
          'Jim': 1,
          'Pam': 4,
          'Dwight': 0,
          'Jan': 143,
          'Michel': 181,
          'Todd Packer': 175,
          'Phyllis': 17,
          'Stanley': 15,
          'Oscar': 20,
          'Angela': 11,
          'Kevin': 6,
          'Ryan': 45,
          'Man': 168,
          'Roy': 156,
          'Documentary Crew Member': 185,
          'Mr. Brown': 185,
          'Toby': 67,
          'Kelly': 43,
          'Meredith': 44,
          'Travel Agent': 185,
          'Man on Phone': 185,
          'Everybody': 179,
          'Lonny': 183,
          'Darryl': 81,
          'Teammates': 185,
          'Michael and Dwight': 178,
          'Warehouse worker': 185,
          'Madge': 183,
          'Worker': 184,
          'Packer': 180,
          'Warehouse Worker': 185,
          'Katy': 183,
          'Guy at bar': 185,
          'Other Guy at Bar': 185,
          'Guy At Bar': 185,
          'Pam and Jim': 184,
          'Employee': 185,
          'Chili's Employee': 185,
          'Waitress': 180,
          'Manager': 183,
          'Kevin's computer': 185,
          'Warehouse Guy': 183,
          'Warehouse guy': 185,
          'Warehouse guys': 185,
          'Video': 184,
          'Man in Video': 185,
          'Actor': 184,
          'Redheaded Actress': 185,
          'Mr. O'Malley': 185,
          'Albiny': 185,
          'Pam's Mom': 185,
          'Carol': 180,
          'Bill': 184,
          'Everyone': 155,
          'Crowd': 179,
          'song': 185,
          'Song': 185,
          'Dwight and Michael': 182,
          'Sherri': 185,
          'Creed': 49,
          'Devon': 184,
          'Children': 185,
          'Kid': 182,
```

'Vance Refrigeration Worker #1': 183,
'Vance Refrigeration Worker #2': 184,
'Hank the Security Guard': 184,
'Ira': 185,
"Ryan's Voicemail": 185,
'Master': 185,
'Alyssa': 185,
'Christian': 185,
'Hostess': 184,
'Michael and Christian': 185,
'Sadiq (IT guy)': 185,
'Mark': 183,
'Improv Teacher': 185,
'Mary-Beth': 185,
'Girl acting Pregnant': 185,
'Actress': 185,
'Michael and Jim': 185,
'Kevin & Oscar': 185,
'All': 154,
'Liquor Store Clerk': 185,
'JIm': 185,
'Bob Vance': 177,
'Phyllis, Meredith, Michael, Kevin': 185,
'Captain Jack': 185,
'Brenda': 185,
'Darryl and Katy': 185,
'Jim and Pam': 182,
'Billy Merchant': 185,
'Doctor': 183,
'Lab Tech': 185,
'Dana': 185,
"Hooter's Girls": 185,
'Phylis': 184,
'Gil': 184,
'Pam and others': 185,
'Ed': 184,
'Todd': 183,
"Jim's voicemail": 185,
'Women': 183,
'Guy': 174,
'Men': 185,
'Group chant': 185,
'All the Men': 185,
'Dwight and Roy': 185,
'Delivery man': 185,
'Craig': 185,
'Josh': 179,
'David': 158,
'Dan': 185,
'Receptionist': 178,
'Overhead': 184,
'Speaker': 184,
'Jim and Dwight': 185,
'Melissa': 184,
'Sasha': 183,
'Abby': 185,
'Jake': 184,
'The Kids': 185,
'Kids': 182,
'Miss Trudy': 185,
'Edward R. Meow': 185,
'Chet': 185,
'Young Michael': 185,
'Delivery Woman': 185,

'Delivery Boy': 185,
'Office Staff': 185,
'Store Employee': 185,
'Pam/Jim': 185,
'Linda': 184,
'Hank': 173,
'Sheriff': 185,
'I.D. Photographer': 185,
'Photographer': 182,
'Anglea': 185,
'Female worker': 185,
'Billy's Girlfriend': 185,
'Billy': 185,
'Dealer': 185,
'Bob': 179,
'Meredith's Vet': 185,
'Andy': 42,
'Karen': 160,
'Jerome Bettis': 185,
'Ted': 185,
'Waiter': 178,
'Jim, Josh, and Dwight': 185,
'Evan': 185,
'Alan': 184,
'Ryan and others': 185,
'Hannah': 182,
'Announcer': 184,
'Pretzel guy': 185,
'Cousin Mose': 185,
'Tony': 184,
'Server': 184,
'Girls': 185,
'Kelly's Mom': 185,
'Kelly's Father': 185,
'Young Man': 185,
'Andy and Jim': 185,
'Mrs. Kapoor': 185,
'Mr. Kapoor': 185,
'Michael': 185,
'Dwight': 185,
'Martin': 184,
'Male voice': 185,
'Michael & Dwight': 184,
'Andy & Michael': 184,
'Chef': 185,
'Woman at bar': 185,
'Cindy': 185,
'Second Cindy': 185,
'Other waitress': 185,
'Andy and Michael': 185,
'Both': 178,
'Someone': 183,
'Harvey': 185,
'Buyer': 184,
'Kenny': 181,
'Julius': 184,
'Phone': 183,
'Staples Guy': 185,
'Michael': 185,
'Lady': 182,
'Paris': 185,
'Marcy': 185,
'Ben Franklin': 185,
'Elizabeth': 184,

'Priest': 185,
'Uncle Al': 185,
'Randy': 185,
'Unknown': 185,
'College Student': 185,
'Business Student #1': 185,
'Business Student #2': 185,
'Business Student #3': 185,
'Woman': 177,
'Artist': 185,
'Student 1': 184,
'Student 2': 184,
'Student 3': 185,
'Rachel': 184,
'Dan Gore': 185,
'Bartender': 181,
'Child': 185,
'Hunter': 183,
'Darry': 185,
'Micheal': 180,
'Larry': 185,
'Chad Lite': 185,
'Jamie': 185,
'Barbara': 185,
'School Official': 185,
'Barbara Allen': 185,
'Spanish Teacher': 185,
'Denise': 185,
'Group': 176,
'IT Tech Guy': 185,
'Nurse': 182,
'Intern': 185,
'Pediatrician': 185,
'Robert Dunder': 185,
'Amy': 185,
'GPS': 185,
'Larry Myers': 185,
'Ex-client': 185,
'Voice of Thomas Dean': 185,
'sAndy': 185,
'DunMiff/sys': 185,
'DwightKSchrute': 185,
'Tech Guy': 185,
'Angels': 185,
'Pizza guy': 185,
'Voice #1 on phone': 185,
'Voice #2 on phone': 185,
'Micahel': 182,
'Michae': 184,
'Nick': 182,
'Mose': 179,
'Co-Worker 1': 185,
'Stanely': 185,
'Micael': 185,
'Vikram': 184,
'Co-Worker 2': 185,
'Co-Worker 3': 185,
'Mr. Figaro': 185,
'Oscar and Stanley': 185,
'Ad guy 1': 185,
'Ad guy 2': 185,
'David Wallace': 170,
'Andy, Creed, Kevin, Kelly, Darryl': 185,
'Andy, Creed, Kevin, Kelly': 185,

'Michael's Ad': 185,
'Rolando': 184,
'Ben': 185,
'Security guard': 185,
'Lester': 185,
'Diane Kelly': 185,
'Diane': 185,
'Deposition Reporter': 185,
'Council': 185,
'Hunter's CD': 185,
'Officer 1': 185,
'Officer 2': 185,
'Officer': 185,
'Neighbor': 185,
'Wendy's phone operator': 185,
'Margaret': 185,
'Coffee shop worker': 185,
'Jan [on phone]': 185,
'W.B. Jones': 185,
'Paul Faust': 185,
'Bill Cress': 185,
'Paul': 185,
'Michael/Dwight': 185,
'Troy': 183,
'Girl in Club': 185,
'Tall Girl #1': 185,
'All Girls': 185,
'Tall Girl #2': 185,
'Girl in 2nd club': 185,
'Cleaning lady': 185,
'Michael and Darryl': 185,
'Phil Maguire': 185,
'Phil': 185,
'Justin': 185,
'Angela and Dwight': 185,
'Maguire': 185,
'Woman on mic': 185,
'Graphics guy': 185,
'Brad': 185,
'Air Force recruiter': 185,
'Holly': 169,
'Woman over speakerphone': 185,
'Vance Refrigeration guy': 184,
'Holy': 184,
'Co-workers': 185,
'Ronnie': 185,
'Professor': 185,
'Friend': 185,
'JIM9334 [screen name]': 185,
'Receptionitis15 [screen name]': 185,
'JIM9334': 185,
'Receptionitis15': 185,
'Michael & Holly': 184,
'Dight': 185,
'Kendall': 184,
'Michael [on phone]': 185,
'Pam [on phone]': 185,
'Man on phone': 184,
'Hank [the security guard]': 185,
'Guy in audience': 185,
'Michael and Holly': 185,
'Michael, Holly, and Darryl': 185,
'Tom': 183,
'Pete': 164,

'Holly & Darryl': 185,
'Holly & Michael': 185,
'Mother': 185,
'Alex': 185,
'Customer': 183,
'Kevin & Andy': 185,
'Stanley & Phyllis': 185,
'Stewardess': 185,
'Beth': 185,
'Concierge': 185,
'Marie': 185,
'Guy at table': 185,
'Concierge Marie': 185,
'Client': 183,
'Dacvid Walalce': 185,
'David Wallcve': 185,
'Dacvid Wallace': 185,
'Leo': 185,
'Vance Refrigeration Guy': 185,
'Police Officer 1': 185,
'Police Officer 2': 185,
'Guy buying doll': 185,
'Rehab Nurse': 185,
'Everyone watching': 185,
'Entire Prince family': 185,
'Prince Grandfather': 185,
'Entire office': 185,
'Prince': 185,
'Prince Granddaughter': 185,
'Prince Grandmother': 185,
'Prince Son': 185,
'Phyllis and Creed': 185,
'Lawyer': 184,
'CPR trainer': 185,
'CPR Trainer': 185,
'Rose': 185,
'Jessica Alba': 185,
'Lily': 185,
'Sam': 185,
'Warehouse Michael': 185,
'Julia': 185,
'A.J.': 185,
'Phone Salesman': 185,
'Jim, Pam, Michael and Dwight': 185,
'Blood Drive Worker': 185,
'Blood Girl': 185,
'Lynn': 183,
'Blonde': 185,
'Eric': 183,
'Girl': 183,
'Charles': 179,
'Stephanie': 183,
'Employees': 185,
'Isaac': 184,
'Angela and Kelly': 185,
'Supervisor': 185,
'Michal': 185,
'Nana': 185,
'Chares': 185,
'Old Woman': 184,
'Erin': 88,
'Dwight and Erin': 184,
'Dwight and Andy': 184,
'Michael, Pam & Ryan': 185,

'Secretary': 183,
'Automated phone voice': 185,
'Mr. Schofield': 185,
'Financial Guy': 185,
'Ty': 185,
'Jessica': 182,
'Vance Refrigeration Guy 1': 185,
'Vance Refrigeration Guy 2': 185,
'VRG 1': 185,
'VRG 2': 185,
'Rolph': 185,
'AJ': 184,
'Man from Buffalo': 185,
'Woman from Buffalo': 185,
'Dwight & Andy': 185,
'Female Intern': 185,
'Female intern': 185,
'Maurie': 185,
'Dwight, Jim & Pam': 185,
'Jim & Pam': 184,
'Megan': 184,
'Gwenneth': 185,
'Front Desk Clerk': 185,
'Mr. Halpert': 185,
'Mema': 185,
'Mr. Beesly': 185,
'Little Girl': 184,
'Penny': 185,
'Isabel': 184,
'Hotel Employee': 184,
'Hotel Manager': 185,
'Pam's mom': 185,
'Tom Halpert': 185,
'Pete Halpert': 185,
'Tom and Pete': 185,
'Pam's dad': 185,
'Grotti': 185,
'Andy and Dwight': 184,
'Credit card rep': 185,
'Rep': 185,
'Various': 184,
'Keena Gifford': 185,
'Helene': 181,
'David Wallace's Secretary': 185,
'Voice on CD player': 185,
'Limo Driver': 184,
'Laurie': 185,
'Registrar': 185,
'Security': 185,
'Woman in line': 185,
'Man in line': 185,
'Shareholder': 185,
'Female Shareholder': 185,
'Second Shareholder': 185,
'Third Shareholder': 185,
'Fourth Shareholder': 185,
'O'Keefe': 185,
'Mikela': 185,
'Students': 184,
'Teacher': 185,
'Lefevre': 185,
'Zion': 185,
'Deliveryman': 185,
'Michael and Erin': 185,

'Daryl': 180,
'Office': 184,
'Kelly and Erin': 184,
'Matt': 184,
'Computron': 185,
'Fake Stanley': 185,
'Gabe': 139,
'Andy & Erin': 184,
'Christian Slater': 185,
'Jo Bennett': 185,
'Jo': 177,
'Jerry': 185,
'Teddy Wallace': 185,
'Mrs. Wallace': 185,
'Teddy': 185,
'Dwight, Jim and Michael': 185,
'Policeman': 185,
'Hospital employee': 185,
'(Pam's mom) Heleen': 185,
'Kathy': 181,
'Dale': 185,
'Clark': 166,
'Isabelle': 185,
'D': 185,
'Warehouse guy 1': 185,
'Warehouse guy 2': 185,
'Reid': 185,
'Night cleaning crew': 185,
'Meredith, Creed, Oscar and Matt': 185,
'Miichael': 185,
'Julie': 185,
'Hide': 181,
'Bar Manager': 185,
'Bouncer': 185,
'Girl at table': 185,
'Cookie Monster': 185,
'Dwight.': 185,
'Hayworth's waiter': 185,
'Oscar's voice from the computer': 185,
'Donna': 183,
'Michael and Donna': 185,
'Mihael': 185,
'Old lady': 185,
'Glen': 185,
'Gym Instructor': 185,
'Gym instructor': 185,
'Dwight and Angela': 185,
'Shane': 185,
'Reporter': 184,
'Realtor': 185,
'Luke': 185,
'Window treatment guy': 185,
'Angel': 185,
'Salesman': 184,
'Usher': 184,
'Shelby': 185,
'Sweeney Todd': 185,
'Mexican Man': 185,
'Son': 185,
'Nate': 176,
'Employees except Dwight': 185,
'Astrid': 185,
'Carroll': 185,
'Carrol': 185,

'Danny': 184,
'Steve': 185,
'Darryl and Andy': 185,
'Church congregation': 185,
'Pastor': 184,
'Female church member': 185,
'Male church member': 185,
'Female church member [to Michael]': 185,
'Doug [church member]': 185,
'Doug': 185,
'Mee-Maw': 185,
'MeeMaw': 185,
'Carla': 184,
'Jim's Dad': 185,
'Bus driver': 185,
'Michael and Andy': 185,
'Another guy': 185,
'Radio': 185,
'Cece': 183,
'TV': 185,
'Meridith': 185,
'Robotic Voice': 185,
'Ryan and Michael': 185,
'Phyllis': 185,
'Dwight & Nate': 185,
'Passer-by': 185,
'Bass Player': 185,
'Justine': 184,
'Jada': 184,
'Robert': 165,
'Darrly': 184,
'Member': 185,
'Video Michael': 185,
'Bookstore employee': 185,
'DJ': 185,
'David Brent': 184,
'Older guy': 185,
'Phyllis, Stanley, Dwight': 185,
'Younger Guy': 185,
'Older Woman': 185,
'Professor Powell': 185,
'Ryan and Kelly': 185,
'Helen': 185,
'Attendant': 185,
'Hot Dog Guy': 185,
'Cell Phone Sales Person': 185,
'Boom Box': 185,
'Andy and Erin': 185,
'Holly's Mom': 185,
'Holly's Dad': 185,
'Deangelo': 184,
'Deangelo/Michael': 185,
'Denagelo': 185,
'Darryl's sister': 185,
'DeAngelo': 184,
'Audience': 183,
'Together': 185,
'Erin and Kelly': 185,
'abe': 185,
'Rory': 185,
'DeAgnelo': 185,
'Jordan': 183,
'Dwight [on phone]': 185,
'Mose [on phone]': 185,

'All but Oscar': 185,
'Darryl and Angela': 185,
'Fred Henry': 185,
'Fred': 185,
'Warren Buffett': 185,
'Warren': 185,
'Robert California': 184,
'Merv Bronte': 185,
'Merv': 185,
'Nellie Bertram': 185,
'Nellie': 153,
'Finger Lakes Guy': 185,
'Pam as fourth-biggest client': 185,
'Pam as ninth-biggest client': 185,
'Darryl & Oscar': 185,
'Tattoo Artist': 185,
'Female Applicant': 185,
'Male Applicant 1': 185,
'Male Applicant 2': 185,
'Gideon': 185,
'Bruce': 185,
'Dwight, Erin, Jim & Kevin': 185,
'Walter': 185,
'Ellen': 185,
'Walter Jr': 185,
'Andy & Walter': 185,
'Walter & Walter Jr': 185,
'Erin's Cell Phone': 185,
'Bert': 185,
'Gabe/Kelly/Toby': 185,
'Andy/Pam': 185,
'Andy/Stanley': 185,
'Val': 175,
'Warehouse Crew': 185,
'Cathy': 179,
'Offscreen': 185,
'Curtis': 185,
'Drummer': 185,
'Pam and Kelly': 185,
'Old Man': 185,
'Andy and Darryl': 185,
'Darryl and Kevin': 185,
'Park Ranger': 185,
'Chelsea': 185,
'Archivist': 185,
'Narrator': 185,
'Soldier': 184,
'Amanda': 185,
'Susan': 185,
'Andy/Oscar': 185,
'Bob's Secretary': 185,
'Mrs. California': 185,
'Host': 185,
'Queerenstein Bears': 185,
'Oscar's friend': 185,
'Stu': 185,
'Stonewall Host': 185,
'Meredith & Kelly': 185,
'Einsteins': 185,
'Senator Lipton': 183,
'Ernesto': 185,
'Officer Foley': 185,
'Andy, Darryl & Officer Foley': 185,
'Saleswoman': 185,

'Emergency Operator': 185,
'Paramedic': 185,
'Donna Muraski': 185,
'Wally Amos': 185,
'Angela/Pam': 185,
'Brandon': 184,
'Blogger': 185,
'Blogger 2': 185,
'Lady Blogger': 185,
'Patty': 185,
'Old Lady': 185,
'Others': 184,
'Elderly Woman': 185,
'Irene': 184,
'Alonzo': 185,
'Glenn': 183,
'Erin and Irene': 185,
'Kevin & Meredith': 185,
'Lauren': 185,
'Party guests': 185,
'Magician': 185,
'Ravi': 183,
'Robert & Creed': 185,
'Wrangler': 185,
'Senator': 183,
'Vet': 185,
'Harry': 185,
'Mr. Ramish': 185,
'Calvin': 185,
'Off-camera': 185,
'Rafe': 185,
'Fake Jim': 185,
'Voicemail': 185,
'Nellie and Pam': 185,
'Group: Dunder Mifflin!\nAndy: Andy Bernard presents: Summer Softball Epic Fails! [Kevin swings bat on screen, fart noise follows] Fail. [repeats] Fail': 185,
'[repeats]\nAndy: Fail': 185,
"[Clark and Pete are shown on screen]\nVideo Andy: Hey, I'm Pete, puberty is such a drag, man. And I'm Clark! I like to eat toilet paper. [Clark and Pete wave at camera] We fail! [Video shows memorial of Jerry": 185,
'Phyllis, Kevin & Stanley': 185,
'HCT': 185,
'HCT Member #1': 185,
'HCT Member #2': 185,
'Broccoli Rob': 185,
'Businessman #1': 185,
'Businessman #2': 185,
'Businessman #3': 185,
'HCT Member #3': 185,
'White': 185,
'Boat Guy': 185,
'Walt Jr.': 185,
'Senator Liptop': 185,
'Guys in breakroom': 185,
'Business partner': 185,
'Molly': 185,
'Colin': 185,
'Trevor': 184,
'Julius Irving': 185,
'New Instant Message': 185,
'Suit Store Father': 185,
'Athlead Employee': 184,
'Dennis': 185,

'Wade': 185,
'Suit Store Son': 185,
'Female Athlead Employee': 185,
'3rd Athlead Employee': 185,
'4th Athlead Employee': 185,
'Co-worker': 185,
'Co-worker #2': 185,
'Mr. Romanko': 185,
'Dance Teacher': 185,
'Ballerinas': 185,
'Parent in Audience': 185,
'Parent in audience #2': 185,
'Parent in audience #1': 185,
'Investor': 185,
'Lonnie': 185,
'Fast Food Worker': 185,
'Drive Thru Customer': 185,
'Brian': 181,
'Cameraman': 185,
'Rolf': 185,
'Gabor': 185,
'Zeke': 183,
'Melvina': 185,
'Wolf': 185,
'Sensei Ira': 185,
'Pam & Dwight': 185,
'Frank': 185,
'Party Announcer': 185,
'Party Guest': 185,
'Party Photographer': 185,
'Party Waiter': 185,
'Nail stylist 1': 185,
'Nail stylist 2': 185,
'Nail manager': 185,
'Shirley': 185,
'Athlead Coworker': 185,
'Roger': 185,
'Alice': 185,
'Oscar's Computer': 185,
'Jeb': 185,
'German Minister': 185,
'Fannie': 185,
'Henry': 185,
'Esther': 181,
'Aunt Shirley': 185,
'Cameron': 185,
'Promo Voice': 185,
'Ryan Howard': 185,
'Mr. Ruger': 185,
'Promo Announcer': 185,
'Ruger Sister 1': 185,
'Salesmen': 185,
'Ruger Sister 2': 185,
'Angela & Oscar': 184,
'Reporter #1': 185,
'Reporter #2': 185,
'Mrs. Davis': 185,
'Phillip': 184,
'Carla Fern': 185,
'Director': 185,
'Producer': 185,
'Bob Vance, Vance Refrigeration': 185,
'Production Assistant': 185,
'Sensei': 185,

```
'Philip': 185,
'Check-in guy': 185,
'Casey': 185,
'Mark McGrath': 185,
'Jim & Dwight': 185,
'Camera Crew': 185,
'People in line': 185,
'Santigold': 185,
'Aaron Rodgers': 185,
'Clay Aiken': 185,
'CameraMan': 185,
'Malcolm': 185,
'Casey Dean': 185,
'Bill Hader': 185,
'Seth Mayers': 185,
'Dakota': 185,
'Stripper': 185,
'Jakey': 185,
'Man 1': 185,
'Woman 1': 185,
'Woman 2': 185,
'Man 2': 185,
'Moderator': 185,
'Man 3': 185,
'Woman 3': 185,
'Woman 4': 185,
'Joan': 185,
'Minister': 185,
'Carol Stills': 185}
```

Number of times "That's what she said" joke comes up

Include five examples of the joke

In [52]:

```
target_joke = "that's what she said"
jokes = office_data[office_data.line_text.apply(lambda x: target_joke in x.1
print(f"Number of times {target_joke} comes up: {jokes.shape[0]}")
jokes.sample(5)
```

Number of times that's what she said comes up: 37

Out[52]:

	id	season	episode	scene	line_text	speaker	deleted
15385	15386	3	20	11	No, no. I need two men on this. That's what ...	Michael	False
24754	24755	5	6	27	[in New York] That's what she said! That's wha...	Pam	False
18959	18960	4	4	45	And the best way to start is to hit start. And...	Michael	False
16405	16406	3	22	68	That's what she said!	Everyone	False
44695	44696	7	21	51	[putting his shoes back on, talking to the cam...	Michael	False

The average percent of lines each character contributed each episode per season

```
In [60]: episode_to_character_lines_num = defaultdict(lambda : defaultdict(lambda : 0))
def add_one(episode, character):
    episode_to_character_lines_num[episode][character] += 1

office_data.apply(lambda x: add_one(
    (x.season, x.episode),
    x.speaker),
    axis=1)

episode_to_character_line_freq = dict()
for episode, character_lines_num in episode_to_character_lines_num.items():
    total_num_lines_per_episode = sum(character_lines_num.values())
    episode_to_character_line_freq[episode] = {
        character: line_num / total_num_lines_per_episode for (character, li
    }
```

```
In [62]: episode_to_character_line_freq
```



```
Out[62]: {(1, 1): {'Michael': 0.3592592592592593,  
  'Jim': 0.13703703703703704,  
  'Pam': 0.17037037037037037,  
  'Dwight': 0.12962962962962962,  
  'Jan': 0.04444444444444446,  
  'Michel': 0.003703703703703704,  
  'Todd Packer': 0.01111111111111112,  
  'Phyllis': 0.007407407407407408,  
  'Stanley': 0.018518518518518517,  
  'Oscar': 0.02222222222222223,  
  'Angela': 0.018518518518518517,  
  'Kevin': 0.007407407407407408,  
  'Ryan': 0.037037037037037035,  
  'Man': 0.003703703703703704,  
  'Roy': 0.018518518518518517,  
  'Documentary Crew Member': 0.01111111111111112},  
(1, 2): {'Michael': 0.3468013468013468,  
  'Mr. Brown': 0.1750841750841751,  
  'Jim': 0.11784511784511785,  
  'Dwight': 0.13468013468013468,  
  'Pam': 0.08754208754208755,  
  'Oscar': 0.04377104377104377,  
  'Kevin': 0.026936026936026935,  
  'Toby': 0.006734006734006734,  
  'Kelly': 0.006734006734006734,  
  'Stanley': 0.016835016835016835,  
  'Ryan': 0.02356902356902357,  
  'Angela': 0.013468013468013467},  
(1, 3): {'Michael': 0.21296296296296297,  
  'Pam': 0.13580246913580246,  
  'Jan': 0.05555555555555555,  
  'Jim': 0.17592592592592593,  
  'Dwight': 0.2716049382716049,  
  'Stanley': 0.018518518518518517,  
  'Oscar': 0.04938271604938271,  
  'Kevin': 0.018518518518518517,  
  'Angela': 0.015432098765432098,  
  'Meredith': 0.009259259259259259,  
  'Travel Agent': 0.0030864197530864196,  
  'Man on Phone': 0.030864197530864196,  
  'Ryan': 0.0030864197530864196},  
(1, 4): {'Dwight': 0.20555555555555555,  
  'Michael': 0.30833333333333335,  
  'Stanley': 0.005555555555555556,  
  'Pam': 0.10277777777777777,  
  'Phyllis': 0.013888888888888888,  
  'Angela': 0.025,  
  'Jim': 0.175,  
  'Kevin': 0.008333333333333333,  
  'Toby': 0.019444444444444445,  
  'Oscar': 0.05555555555555555,  
  'Ryan': 0.013888888888888888,  
  'Everybody': 0.016666666666666666,  
  'Meredith': 0.041666666666666664,  
  'Roy': 0.008333333333333333},  
(1, 5): {'Michael': 0.42948717948717946,  
  'Dwight': 0.14423076923076922,  
  'Jim': 0.08653846153846154,  
  'Phyllis': 0.01282051282051282,  
  'Pam': 0.05448717948717949,  
  'Ryan': 0.02564102564102564,  
  'Lonny': 0.016025641025641024,  
  'Darryl': 0.05448717948717949,  
  'Everybody': 0.00641025641025641,
```

```
'Stanley': 0.019230769230769232,  
'Oscar': 0.00641025641025641,  
'Kevin': 0.01282051282051282,  
'Angela': 0.019230769230769232,  
'Roy': 0.041666666666666664,  
'Teammates': 0.003205128205128205,  
'Michael and Dwight': 0.003205128205128205,  
'Warehouse worker': 0.00641025641025641,  
'Madge': 0.009615384615384616,  
'Worker': 0.016025641025641024,  
'Todd Packer': 0.02564102564102564,  
'Packer': 0.003205128205128205,  
'Warehouse Worker': 0.003205128205128205},  
(1, 6): {'Jan': 0.018475750577367205,  
'Michael': 0.2956120092378753,  
'Dwight': 0.10161662817551963,  
'Pam': 0.11316397228637413,  
'Katy': 0.16859122401847576,  
'Kevin': 0.016166281755196306,  
'Ryan': 0.04849884526558892,  
'Oscar': 0.0023094688221709007,  
'Toby': 0.03233256351039261,  
'Roy': 0.03233256351039261,  
'Jim': 0.15242494226327943,  
'Stanley': 0.006928406466512702,  
'Angela': 0.006928406466512702,  
'Kelly': 0.004618937644341801},  
(2, 1): {'Michael': 0.345,  
'Jim': 0.105,  
'Pam': 0.12,  
'Dwight': 0.185,  
'Stanley': 0.02,  
'Oscar': 0.01,  
'Kelly': 0.0225,  
'Phyllis': 0.0575,  
'Jan': 0.0225,  
'Roy': 0.0175,  
'Kevin': 0.01,  
'Darryl': 0.0025,  
'Ryan': 0.005,  
'Angela': 0.01,  
'Guy at bar': 0.0025,  
'Other Guy at Bar': 0.0025,  
'Guy At Bar': 0.005,  
'Pam and Jim': 0.0025,  
'Everybody': 0.0025,  
'Employee': 0.0025,  
'Chili's Employee': 0.0025,  
'Toby': 0.015,  
'Waitress': 0.0075,  
'Manager': 0.025},  
(2, 2): {'Michael': 0.34782608695652173,  
'Jim': 0.06832298136645963,  
'Dwight': 0.037267080745341616,  
'Todd Packer': 0.062111801242236024,  
'Ryan': 0.003105590062111801,  
'Kevin's computer': 0.003105590062111801,  
'Pam': 0.12732919254658384,  
'Toby': 0.08074534161490683,  
'Darryl': 0.027950310559006212,  
'Roy': 0.043478260869565216,  
'Warehouse Guy': 0.003105590062111801,  
'Warehouse guy': 0.006211180124223602,  
'Warehouse guys': 0.003105590062111801,
```

```
'Kevin': 0.027950310559006212,  
'Angela': 0.012422360248447204,  
'Stanley': 0.003105590062111801,  
'Meredith': 0.003105590062111801,  
'Phyllis': 0.018633540372670808,  
'Video': 0.006211180124223602,  
'Man in Video': 0.003105590062111801,  
'Actor': 0.006211180124223602,  
'Redheaded Actress': 0.003105590062111801,  
'Jan': 0.034161490683229816,  
'Mr. O'Malley': 0.003105590062111801,  
'Albiny': 0.006211180124223602,  
'Pam's Mom': 0.055900621118012424,  
'Oscar': 0.003105590062111801},  
(2, 3): {'Michael': 0.2977667493796526,  
'Ryan': 0.01240694789081886,  
'Dwight': 0.21588089330024815,  
'Jim': 0.17866004962779156,  
'Pam': 0.11166253101736973,  
'Kevin': 0.03225806451612903,  
'Oscar': 0.03225806451612903,  
'Angela': 0.019851116625310174,  
'Carol': 0.04466501240694789,  
'Bill': 0.004962779156327543,  
'Stanley': 0.007444168734491315,  
'Phyllis': 0.009925558312655087,  
'Meredith': 0.0024813895781637717,  
'Everyone': 0.0024813895781637717,  
'Crowd': 0.0024813895781637717,  
'Man': 0.01488833746898263,  
'Toby': 0.009925558312655087},  
(2, 4): {'Pam': 0.07272727272727272,  
'Jim': 0.17402597402597403,  
'Michael': 0.2051948051948052,  
'Ryan': 0.12987012987012986,  
'Dwight': 0.2077922077922078,  
'Oscar': 0.01038961038961039,  
'Angela': 0.046753246753246755,  
'Phyllis': 0.015584415584415584,  
'Kelly': 0.01038961038961039,  
'Stanley': 0.01818181818181818,  
'Meredith': 0.01038961038961039,  
'Kevin': 0.023376623376623377,  
'song': 0.0025974025974025974,  
'Song': 0.015584415584415584,  
'Roy': 0.015584415584415584,  
'Dwight and Michael': 0.007792207792207792,  
'Katy': 0.02857142857142857,  
'Toby': 0.005194805194805195},  
(2, 5): {'Michael': 0.4225352112676056,  
'Pam': 0.07605633802816901,  
'Sherri': 0.030985915492957747,  
'Dwight': 0.10140845070422536,  
'Jim': 0.08732394366197183,  
'Phyllis': 0.014084507042253521,  
'Oscar': 0.01971830985915493,  
'Angela': 0.03943661971830986,  
'Kevin': 0.005633802816901409,  
'Kelly': 0.008450704225352112,  
'Stanley': 0.014084507042253521,  
'Ryan': 0.0028169014084507044,  
'Creed': 0.07605633802816901,  
'Devon': 0.022535211267605635,  
'Children': 0.0028169014084507044,
```

```
'Kid': 0.008450704225352112,  
'Toby': 0.01971830985915493,  
'Vance Refrigeration Worker #1': 0.005633802816901409,  
'Vance Refrigeration Worker #2': 0.005633802816901409,  
'Hank the Security Guard': 0.008450704225352112,  
'Jan': 0.028169014084507043},  
(2, 6): {'Dwight': 0.23404255319148937,  
'Jim': 0.1641337386018237,  
'Stanley': 0.02735562310030395,  
'Pam': 0.08206686930091185,  
'Michael': 0.3100303951367781,  
'Ryan': 0.0547112462006079,  
'Kevin': 0.0121580547112462,  
'Toby': 0.015197568389057751,  
'Angela': 0.0182370820668693,  
'Kelly': 0.0121580547112462,  
'Ira': 0.02735562310030395,  
'Ryan's Voicemail': 0.00303951367781155,  
'Master': 0.02735562310030395,  
'Oscar': 0.0060790273556231,  
'Meredith': 0.00303951367781155,  
'Alyssa': 0.00303951367781155},  
(2, 7): {'Ryan': 0.026143790849673203,  
'Jim': 0.16993464052287582,  
'Pam': 0.13071895424836602,  
'Jan': 0.17973856209150327,  
'Michael': 0.28104575163398693,  
'Oscar': 0.016339869281045753,  
'Toby': 0.0032679738562091504,  
'Kelly': 0.0032679738562091504,  
'Dwight': 0.0784313725490196,  
'Christian': 0.06209150326797386,  
'Hostess': 0.0032679738562091504,  
'Everyone': 0.0032679738562091504,  
'Phyllis': 0.0196078431372549,  
'Michael and Christian': 0.006535947712418301,  
'Roy': 0.0032679738562091504,  
'Kevin': 0.006535947712418301,  
'Stanley': 0.0032679738562091504,  
'Angela': 0.0032679738562091504},  
(2, 8): {'Dwight': 0.16708229426433915,  
'Jim': 0.11970074812967581,  
'Michael': 0.36658354114713215,  
'Pam': 0.08728179551122195,  
'Stanley': 0.012468827930174564,  
'Angela': 0.012468827930174564,  
'Jan': 0.16458852867830423,  
'Kevin': 0.00997506234413965,  
'Oscar': 0.012468827930174564,  
'Ryan': 0.034912718204488775,  
'Kelly': 0.004987531172069825,  
'Phyllis': 0.0024937655860349127,  
'Toby': 0.0024937655860349127,  
'Creed': 0.0024937655860349127},  
(2, 9): {'Michael': 0.3161764705882353,  
'Jim': 0.14705882352941177,  
'Kevin': 0.029411764705882353,  
'Sadiq (IT guy)': 0.029411764705882353,  
'Dwight': 0.11029411764705882,  
'Oscar': 0.014705882352941176,  
'Stanley': 0.00980392156862745,  
'Angela': 0.03431372549019608,  
'Pam': 0.11519607843137254,  
'Mark': 0.004901960784313725,
```

```
'Ryan': 0.014705882352941176,  
'Improv Teacher': 0.06372549019607843,  
'Mary-Beth': 0.041666666666666664,  
'Girl acting Pregnant': 0.0024509803921568627,  
'Actor': 0.0024509803921568627,  
'Actress': 0.0024509803921568627,  
'Bill': 0.014705882352941176,  
'Kelly': 0.004901960784313725,  
'Phyllis': 0.01715686274509804,  
'Michael and Jim': 0.004901960784313725,  
'Toby': 0.0024509803921568627,  
'Roy': 0.01715686274509804},  
(2, 10): {'Dwight': 0.14868804664723032,  
'Michael': 0.27405247813411077,  
'Kevin': 0.04081632653061224,  
'Jim': 0.07871720116618076,  
'Angela': 0.029154518950437316,  
'Phyllis': 0.023323615160349854,  
'Ryan': 0.052478134110787174,  
'Pam': 0.0641399416909621,  
'Kevin & Oscar': 0.0029154518950437317,  
'Darryl': 0.03498542274052478,  
'Toby': 0.02040816326530612,  
'Oscar': 0.05830903790087463,  
'Stanley': 0.014577259475218658,  
'All': 0.0029154518950437317,  
'Kelly': 0.037900874635568516,  
'Creed': 0.026239067055393587,  
'Meredith': 0.03498542274052478,  
'Liquor Store Clerk': 0.0058309037900874635,  
'JIm': 0.0029154518950437317,  
'Roy': 0.023323615160349854,  
'Bob Vance': 0.011661807580174927,  
'Phyllis, Meredith, Michael, Kevin': 0.0029154518950437317,  
'Todd Packer': 0.008746355685131196},  
(2, 11): {'Jim': 0.0935672514619883,  
'Dwight': 0.08187134502923976,  
'Pam': 0.06432748538011696,  
'Michael': 0.3391812865497076,  
'Phyllis': 0.023391812865497075,  
'Stanley': 0.029239766081871343,  
'Meredith': 0.008771929824561403,  
'Ryan': 0.017543859649122806,  
'Kelly': 0.02046783625730994,  
'Oscar': 0.011695906432748537,  
'Darryl': 0.014619883040935672,  
'Captain Jack': 0.1023391812865497,  
'Katy': 0.04093567251461988,  
'Roy': 0.04678362573099415,  
'Brenda': 0.02046783625730994,  
'Angela': 0.005847953216374269,  
'Darryl and Katy': 0.0029239766081871343,  
'Jan': 0.049707602339181284,  
'Toby': 0.008771929824561403,  
'Creed': 0.017543859649122806},  
(2, 12): {'Oscar': 0.009779951100244499,  
'Jim': 0.1491442542787286,  
'Pam': 0.1393643031784841,  
'Michael': 0.3569682151589242,  
'Phyllis': 0.007334963325183374,  
'Kevin': 0.004889975550122249,  
'Dwight': 0.16625916870415647,  
'Jim and Pam': 0.0024449877750611247,  
'Ryan': 0.039119804400977995,
```

```
'Angela': 0.014669926650366748,  
'Toby': 0.03178484107579462,  
'Creed': 0.0024449877750611247,  
'Stanley': 0.009779951100244499,  
'Kelly': 0.0024449877750611247,  
'Billy Merchant': 0.04156479217603912,  
'Meredith': 0.0024449877750611247,  
'Doctor': 0.012224938875305624,  
'Lab Tech': 0.007334963325183374},  
(2, 13): {'Jim': 0.16987179487179488,  
'Pam': 0.08974358974358974,  
'Michael': 0.36538461538461536,  
'Stanley': 0.009615384615384616,  
'Ryan': 0.04487179487179487,  
'Kevin': 0.02564102564102564,  
'Dwight': 0.17307692307692307,  
'Angela': 0.016025641025641024,  
'Oscar': 0.028846153846153848,  
'Kelly': 0.016025641025641024,  
'Dana': 0.028846153846153848,  
'Hooter's Girls': 0.003205128205128205,  
'Toby': 0.009615384615384616,  
'Phylis': 0.003205128205128205,  
'Creed': 0.009615384615384616,  
'Gil': 0.00641025641025641},  
(2, 14): {'Ryan': 0.03812316715542522,  
'Jim': 0.10557184750733138,  
'Michael': 0.36950146627565983,  
'Pam': 0.08211143695014662,  
'Kevin': 0.02346041055718475,  
'Pam and others': 0.002932551319648094,  
'Toby': 0.02346041055718475,  
'Creed': 0.026392961876832845,  
'Dwight': 0.1378299120234604,  
'Kelly': 0.03812316715542522,  
'Stanley': 0.02346041055718475,  
'Oscar': 0.01466275659824047,  
'Michael and Dwight': 0.002932551319648094,  
'Roy': 0.02346041055718475,  
'Angela': 0.011730205278592375,  
'Phyllis': 0.005865102639296188,  
'Darryl': 0.01466275659824047,  
'Ed': 0.026392961876832845,  
'Todd Packer': 0.002932551319648094,  
'Packer': 0.020527859237536656,  
'Todd': 0.002932551319648094,  
'Jim's voicemail': 0.002932551319648094},  
(2, 15): {'Jan': 0.1774193548387097,  
'Pam': 0.0967741935483871,  
'Michael': 0.2838709677419355,  
'Dwight': 0.05161290322580645,  
'Jim': 0.07741935483870968,  
'Darryl': 0.09032258064516129,  
'Roy': 0.06451612903225806,  
'Kevin': 0.012903225806451613,  
'Meredith': 0.016129032258064516,  
'Phyllis': 0.02903225806451613,  
'Angela': 0.016129032258064516,  
'Kelly': 0.02903225806451613,  
'Women': 0.0032258064516129032,  
'Ryan': 0.0064516129032258064,  
'Lonny': 0.00967741935483871,  
'Madge': 0.0064516129032258064,  
'Guy': 0.012903225806451613,
```

```
'Men': 0.0032258064516129032,  
'Group chant': 0.0032258064516129032,  
'Stanley': 0.0032258064516129032,  
'All the Men': 0.0032258064516129032,  
'Dwight and Roy': 0.0032258064516129032},  
(2, 16): {'Pam': 0.12,  
'Delivery man': 0.02,  
'Meredith': 0.012,  
'Phyllis': 0.02,  
'Michael': 0.212,  
'Dwight': 0.116,  
'Oscar': 0.02,  
'Jim': 0.1,  
'Kelly': 0.052,  
'Ryan': 0.016,  
'Kevin': 0.032,  
'Angela': 0.016,  
'Craig': 0.048,  
'Josh': 0.044,  
'Jan': 0.064,  
'David': 0.048,  
'Dan': 0.004,  
'Roy': 0.02,  
'Creed': 0.012,  
'Vance Refrigeration Worker #1': 0.012,  
'Receptionist': 0.008,  
'Devon': 0.004},  
(2, 17): {'Michael': 0.28517110266159695,  
'Dwight': 0.24334600760456274,  
'Jim': 0.13688212927756654,  
'Creed': 0.015209125475285171,  
'Ryan': 0.053231939163498096,  
'Pam': 0.09125475285171103,  
'Phyllis': 0.030418250950570342,  
'Oscar': 0.011406844106463879,  
'Stanley': 0.022813688212927757,  
'Kelly': 0.019011406844106463,  
'Angela': 0.015209125475285171,  
'Kevin': 0.015209125475285171,  
'Toby': 0.015209125475285171,  
'Overhead': 0.0038022813688212928,  
'Speaker': 0.0076045627376425855,  
'Crowd': 0.030418250950570342,  
'Meredith': 0.0038022813688212928},  
(2, 18): {'Pam': 0.07951070336391437,  
'Jim': 0.07339449541284404,  
'Michael': 0.24770642201834864,  
'Jim and Dwight': 0.0030581039755351682,  
'Dwight': 0.08256880733944955,  
'Toby': 0.039755351681957186,  
'Kevin': 0.021406727828746176,  
'Stanley': 0.027522935779816515,  
'Melissa': 0.05198776758409786,  
'Meredith': 0.0061162079510703364,  
'Angela': 0.03058103975535168,  
'Kelly': 0.024464831804281346,  
'Sasha': 0.024464831804281346,  
'Ryan': 0.03669724770642202,  
'Abby': 0.0581039755351682,  
'Jake': 0.08256880733944955,  
'The Kids': 0.0030581039755351682,  
'Creed': 0.01529051987767584,  
'Kids': 0.0061162079510703364,  
'Miss Trudy': 0.0061162079510703364,
```

```
'Edward R. Meow': 0.021406727828746176,  
'Chet': 0.0061162079510703364,  
'Oscar': 0.012232415902140673,  
'Darryl': 0.01529051987767584,  
'Young Michael': 0.0061162079510703364,  
'Roy': 0.009174311926605505,  
'Michael and Dwight': 0.0061162079510703364,  
'Phyllis': 0.0030581039755351682},  
(2, 19): {'Michael': 0.3626373626373626,  
'Oscar': 0.02564102564102564,  
'Ryan': 0.03663003663003663,  
'Toby': 0.029304029304029304,  
'Jim': 0.08424908424908426,  
'Pam': 0.09523809523809523,  
'Meredith': 0.003663003663003663,  
'Kevin': 0.054945054945054944,  
'Dwight': 0.1684981684981685,  
'Phyllis': 0.007326007326007326,  
'Angela': 0.047619047619047616,  
'Jan': 0.018315018315018316,  
'Stanley': 0.01098901098901099,  
'Kelly': 0.014652014652014652,  
'Delivery Woman': 0.01098901098901099,  
'Delivery Boy': 0.007326007326007326,  
'Office Staff': 0.003663003663003663,  
'Store Employee': 0.003663003663003663,  
'Carol': 0.014652014652014652},  
(2, 20): {'Dwight': 0.30976430976430974,  
'Jim': 0.08754208754208755,  
'Kevin': 0.02356902356902357,  
'Pam': 0.08754208754208755,  
'Kelly': 0.030303030303030304,  
'Ryan': 0.02356902356902357,  
'Michael': 0.20875420875420875,  
'Oscar': 0.026936026936026935,  
'Phyllis': 0.02356902356902357,  
'Creed': 0.006734006734006734,  
'Stanley': 0.030303030303030304,  
'Pam/Jim': 0.003367003367003367,  
'Angela': 0.026936026936026935,  
'Toby': 0.030303030303030304,  
'Linda': 0.016835016835016835,  
'Hank': 0.016835016835016835,  
'Meredith': 0.006734006734006734,  
'Jan': 0.003367003367003367,  
'Man': 0.003367003367003367,  
'Sheriff': 0.026936026936026935,  
'Vance Refrigeration Worker #1': 0.003367003367003367,  
'Vance Refrigeration Worker #2': 0.003367003367003367},  
(2, 21): {'Kevin': 0.01639344262295082,  
'Pam': 0.08524590163934426,  
'Jim': 0.12131147540983607,  
'Phyllis': 0.04918032786885246,  
'Angela': 0.03934426229508197,  
'Michael': 0.3114754098360656,  
'I.D. Photographer': 0.003278688524590164,  
'Dwight': 0.16393442622950818,  
'Ryan': 0.01639344262295082,  
'Oscar': 0.029508196721311476,  
'Toby': 0.07213114754098361,  
'Photographer': 0.04590163934426229,  
'Creed': 0.009836065573770493,  
'Kelly': 0.006557377049180328,  
'Anglea': 0.003278688524590164,
```



```
'Stanley': 0.013114754098360656,  
'Female worker': 0.003278688524590164,  
'Meredith': 0.003278688524590164,  
'Hank the Security Guard': 0.006557377049180328},  
(2, 22): {'Michael': 0.2725060827250608,  
'Jim': 0.12895377128953772,  
'Dwight': 0.09732360097323602,  
'Pam': 0.11192214111922141,  
'Roy': 0.0267639902676399,  
'Jan': 0.09732360097323602,  
'Oscar': 0.012165450121654502,  
'Angela': 0.012165450121654502,  
'Creed': 0.009732360097323601,  
'Kevin': 0.038929440389294405,  
'Kelly': 0.0024330900243309003,  
'Toby': 0.012165450121654502,  
'Phyllis': 0.019464720194647202,  
'Darryl': 0.0267639902676399,  
'Carol': 0.072992700729927,  
'Billy's Girlfriend': 0.004866180048661801,  
'Billy': 0.009732360097323601,  
'Stanley': 0.0072992700729927005,  
'Dealer': 0.012165450121654502,  
'Meredith': 0.0072992700729927005,  
'Ryan': 0.0024330900243309003,  
'Bob Vance': 0.0024330900243309003,  
'Bob': 0.004866180048661801,  
'Meredith's Vet': 0.0072992700729927005},  
(3, 1): {'Ryan': 0.005780346820809248,  
'Jim': 0.07514450867052024,  
'Pam': 0.06936416184971098,  
'Dwight': 0.10404624277456648,  
'Michael': 0.36416184971098264,  
'Toby': 0.057803468208092484,  
'Oscar': 0.09826589595375723,  
'Angela': 0.023121387283236993,  
'Andy': 0.046242774566473986,  
'Josh': 0.005780346820809248,  
'Karen': 0.005780346820809248,  
'Roy': 0.023121387283236993,  
'Stanley': 0.005780346820809248,  
'Kelly': 0.005780346820809248,  
'Jan': 0.06936416184971098,  
'Creed': 0.005780346820809248,  
'Kevin': 0.005780346820809248,  
'Phyllis': 0.017341040462427744,  
'Meredith': 0.011560693641618497},  
(3, 2): {'Michael': 0.3641791044776119,  
'Pam': 0.08955223880597014,  
'Ryan': 0.023880597014925373,  
'Angela': 0.029850746268656716,  
'Dwight': 0.13134328358208955,  
'Kelly': 0.023880597014925373,  
'Dwight and Michael': 0.0029850746268656717,  
'Creed': 0.005970149253731343,  
'Meredith': 0.0029850746268656717,  
'Josh': 0.08059701492537313,  
'Jim': 0.0955223880597015,  
'Kevin': 0.008955223880597015,  
'Toby': 0.01791044776119403,  
'Jan': 0.04477611940298507,  
'Jerome Bettis': 0.011940298507462687,  
'Ted': 0.0029850746268656717,  
'Waiter': 0.0029850746268656717,
```

```
'Phyllis': 0.005970149253731343,  
'Stanley': 0.0029850746268656717,  
'Jim, Josh, and Dwight': 0.0029850746268656717,  
'Evan': 0.01791044776119403,  
'Alan': 0.023880597014925373,  
'Guy': 0.005970149253731343},  
(3, 3): {'Michael': 0.2852233676975945,  
'Dwight': 0.2646048109965636,  
'Pam': 0.06872852233676977,  
'Kevin': 0.01718213058419244,  
'Jan': 0.09621993127147767,  
'Angela': 0.044673539518900345,  
'Jim': 0.058419243986254296,  
'Kelly': 0.027491408934707903,  
'Andy': 0.03436426116838488,  
'Karen': 0.027491408934707903,  
'Phyllis': 0.01718213058419244,  
'Roy': 0.006872852233676976,  
'Josh': 0.027491408934707903,  
'Stanley': 0.010309278350515464,  
'Creed': 0.010309278350515464,  
'Ryan': 0.003436426116838488},  
(3, 4): {'Michael': 0.33865814696485624,  
'Ryan': 0.022364217252396165,  
'Dwight': 0.12779552715654952,  
'Pam': 0.10862619808306709,  
'Ryan and others': 0.003194888178913738,  
'Jan': 0.054313099041533544,  
'Kelly': 0.01597444089456869,  
'Phyllis': 0.009584664536741214,  
'Josh': 0.009584664536741214,  
'Karen': 0.04792332268370607,  
'Jim': 0.06070287539936102,  
'Andy': 0.012779552715654952,  
'Creed': 0.019169329073482427,  
'Angela': 0.022364217252396165,  
'Stanley': 0.019169329073482427,  
'Roy': 0.04792332268370607,  
'Kevin': 0.02875399361022364,  
'Toby': 0.03194888178913738,  
'Meredith': 0.003194888178913738,  
'Hannah': 0.012779552715654952,  
'Man': 0.003194888178913738},  
(3, 5): {'Dwight': 0.18269230769230768,  
'Ryan': 0.13782051282051283,  
'Jan': 0.035256410256410256,  
'Michael': 0.14102564102564102,  
'Pam': 0.1794871794871795,  
'Karen': 0.041666666666666664,  
'Jim': 0.15064102564102563,  
'Andy': 0.02564102564102564,  
'Announcer': 0.003205128205128205,  
'Stanley': 0.028846153846153848,  
'Kelly': 0.019230769230769232,  
'Phyllis': 0.00641025641025641,  
'Bob': 0.00641025641025641,  
'Pretzel guy': 0.009615384615384616,  
'Angela': 0.01282051282051282,  
'Cousin Mose': 0.003205128205128205,  
'Kevin': 0.01282051282051282,  
'Toby': 0.003205128205128205},  
(3, 6): {'Kelly': 0.07168458781362007,  
'Michael': 0.27598566308243727,  
'Pam': 0.0931899641577061,
```

```

'Phyllis': 0.007168458781362007,
'Meredith': 0.007168458781362007,
'Dwight': 0.02867383512544803,
'Kevin': 0.03225806451612903,
'Roy': 0.0035842293906810036,
'Angela': 0.035842293906810034,
'Stanley': 0.0035842293906810036,
'Jim': 0.07168458781362007,
'Karen': 0.053763440860215055,
'Tony': 0.007168458781362007,
'Andy': 0.06451612903225806,
'Creed': 0.0035842293906810036,
'Toby': 0.007168458781362007,
'Josh': 0.007168458781362007,
'Carol': 0.06810035842293907,
'Server': 0.0035842293906810036,
'Ryan': 0.043010752688172046,
'Girls': 0.0035842293906810036,
'Kelly's Mom': 0.017921146953405017,
'Overhead': 0.0035842293906810036,
'Kelly's Father': 0.010752688172043012,
'Crowd': 0.007168458781362007,
'Young Man': 0.0035842293906810036,
'Andy and Jim': 0.014336917562724014,
'Jan': 0.043010752688172046,
'Mrs. Kapoor': 0.0035842293906810036,
'Mr. Kapoor': 0.0035842293906810036},
(3, 7): {'Karen': 0.03461538461538462,
'Jim': 0.08076923076923077,
'Dwight': 0.15,
'Michael': 0.26153846153846155,
'Jan': 0.12307692307692308,
'Andy': 0.019230769230769232,
'Pam': 0.08461538461538462,
'Toby': 0.011538461538461539,
'Angela': 0.026923076923076925,
'Ryan': 0.026923076923076925,
'Kelly': 0.007692307692307693,
'Stanley': 0.0038461538461538464,
'Roy': 0.015384615384615385,
'Kevin': 0.046153846153846156,
'Darryl': 0.015384615384615385,
'Josh': 0.046153846153846156,
'Michael': 0.0038461538461538464,
'Phyllis': 0.03076923076923077,
'Dwight': 0.0038461538461538464,
'Michael and Dwight': 0.007692307692307693},
(3, 8): {'Jim': 0.1386986301369863,
'Andy': 0.09417808219178082,
'Karen': 0.05136986301369863,
'Pam': 0.07705479452054795,
'Toby': 0.0273972602739726,
'Dwight': 0.14383561643835616,
'Michael': 0.2551369863013699,
'Hannah': 0.02054794520547945,
'Tony': 0.03767123287671233,
'Kevin': 0.03595890410958904,
'Martin': 0.011986301369863013,
'Ryan': 0.018835616438356163,
'Kelly': 0.010273972602739725,
'Male voice': 0.0017123287671232876,
'Meredith': 0.018835616438356163,
'Video': 0.003424657534246575,
'Michael & Dwight': 0.0017123287671232876,

```

```
'Michael and Dwight': 0.0017123287671232876,  
'Angela': 0.011986301369863013,  
'Creed': 0.003424657534246575,  
'Phyllis': 0.0136986301369863,  
'Stanley': 0.00684931506849315,  
'Andy & Michael': 0.003424657534246575,  
'Jan': 0.010273972602739725},  
(3, 9): {'Pam': 0.08376963350785341,  
'Hannah': 0.02617801047120419,  
'Stanley': 0.010471204188481676,  
'Michael': 0.28272251308900526,  
'Karen': 0.05235602094240838,  
'Jim': 0.16230366492146597,  
'Angela': 0.05235602094240838,  
'Jan': 0.03664921465968586,  
'Kevin': 0.06806282722513089,  
'Andy': 0.08900523560209424,  
'Dwight': 0.020942408376963352,  
'Martin': 0.05759162303664921,  
'Meredith': 0.005235602094240838,  
'Ryan': 0.015706806282722512,  
'Creed': 0.010471204188481676,  
'Phyllis': 0.005235602094240838,  
'Toby': 0.020942408376963352},  
(3, 10): {'Dwight': 0.113345521023766,  
'Pam': 0.10420475319926874,  
'Jim': 0.08226691042047532,  
'Toby': 0.027422303473491772,  
'Phyllis': 0.027422303473491772,  
'Creed': 0.007312614259597806,  
'Michael': 0.21023765996343693,  
'Kevin': 0.027422303473491772,  
'Andy': 0.051188299817184646,  
'Carol': 0.03290676416819013,  
'Stanley': 0.009140767824497258,  
'Angela': 0.09323583180987204,  
'Karen': 0.06398537477148081,  
'Meredith': 0.005484460694698354,  
'Kelly': 0.03473491773308958,  
'Ryan': 0.04021937842778794,  
'Waitress': 0.0018281535648994515,  
'Roy': 0.010968921389396709,  
'Chef': 0.003656307129798903,  
'Woman at bar': 0.0018281535648994515,  
'Cindy': 0.003656307129798903,  
'Hannah': 0.003656307129798903,  
'Man': 0.0018281535648994515,  
'Darryl': 0.005484460694698354,  
'Everybody': 0.0018281535648994515,  
'Second Cindy': 0.02376599634369287,  
'Other waitress': 0.003656307129798903,  
'Andy and Michael': 0.0018281535648994515,  
'Both': 0.003656307129798903,  
'Oscar': 0.0018281535648994515},  
(3, 11): {'Jim': 0.1021671826625387,  
'Dwight': 0.12074303405572756,  
'Karen': 0.02786377708978328,  
'Phyllis': 0.015479876160990712,  
'Andy': 0.030959752321981424,  
'Michael': 0.30959752321981426,  
'Pam': 0.13312693498452013,  
'Stanley': 0.030959752321981424,  
'Angela': 0.021671826625386997,  
'Everybody': 0.006191950464396285,
```

```
'Packer': 0.021671826625386997,  
'Roy': 0.021671826625386997,  
'Darryl': 0.018575851393188854,  
'Kevin': 0.030959752321981424,  
'Toby': 0.02786377708978328,  
'Jan': 0.043343653250773995,  
'Creed': 0.01238390092879257,  
'Kelly': 0.006191950464396285,  
'Ryan': 0.006191950464396285,  
'Someone': 0.006191950464396285,  
'Meredith': 0.006191950464396285},  
(3, 12): {'Michael': 0.18181818181818182,  
'Harvey': 0.026515151515151516,  
'Jim': 0.14772727272727273,  
'Pam': 0.09848484848484848,  
'Kevin': 0.026515151515151516,  
'Angela': 0.06439393939393939,  
'Andy': 0.10984848484848485,  
'Dwight': 0.125,  
'Phyllis': 0.03787878787878788,  
'Karen': 0.06060606060606061,  
'Stanley': 0.030303030303030304,  
'Ryan': 0.030303030303030304,  
'Buyer': 0.007575757575757576,  
'Kenny': 0.003787878787878788,  
'Julius': 0.011363636363636364,  
'Guy': 0.003787878787878788,  
'Man': 0.01893939393939394,  
'Phone': 0.003787878787878788,  
'Kelly': 0.007575757575757576,  
'Jan': 0.003787878787878788},  
(3, 13): {'Dwight': 0.12077294685990338,  
'Andy': 0.1932367149758454,  
'Jim': 0.12077294685990338,  
'Michael': 0.2318840579710145,  
'Oscar': 0.05314009661835749,  
'Kevin': 0.014492753623188406,  
'Angela': 0.06763285024154589,  
'Staples Guy': 0.004830917874396135,  
'Pam': 0.04830917874396135,  
'Mlchael': 0.004830917874396135,  
'Lady': 0.00966183574879227,  
'Karen': 0.01932367149758454,  
'Ryan': 0.014492753623188406,  
'Phyllis': 0.014492753623188406,  
'Stanley': 0.00966183574879227,  
'Paris': 0.028985507246376812,  
'Everybody': 0.004830917874396135,  
'Creed': 0.014492753623188406,  
'Meredith': 0.00966183574879227,  
'Marcy': 0.014492753623188406},  
(3, 14): {'Michael': 0.29961089494163423,  
'Dwight': 0.11284046692607004,  
'Pam': 0.11673151750972763,  
'Jim': 0.09727626459143969,  
'Angela': 0.019455252918287938,  
'Karen': 0.058365758754863814,  
'Packer': 0.04669260700389105,  
'Meredith': 0.007782101167315175,  
'Ryan': 0.023346303501945526,  
'Ben Franklin': 0.0933852140077821,  
'Elizabeth': 0.06614785992217899,  
'Stanley': 0.0038910505836575876,  
'Kevin': 0.011673151750972763,
```

```
'Roy': 0.0038910505836575876,  
'Bob Vance': 0.0038910505836575876,  
'Jan': 0.023346303501945526,  
'Kelly': 0.011673151750972763},  
(3, 15): {'Jim': 0.10555555555555556,  
'Dwight': 0.13888888888888889,  
'Michael': 0.2722222222222222,  
'Photographer': 0.00555555555555556,  
'Phyllis': 0.08333333333333333,  
'Pam': 0.08333333333333333,  
'Stanley': 0.01111111111111112,  
'Karen': 0.02222222222222223,  
'Angela': 0.01666666666666666,  
'Kevin': 0.02222222222222223,  
'Toby': 0.01111111111111112,  
'Kelly': 0.03333333333333333,  
'Meredith': 0.00555555555555556,  
'Crowd': 0.01666666666666666,  
'Priest': 0.02222222222222223,  
'Bob Vance': 0.03888888888888889,  
'Uncle Al': 0.03888888888888889,  
'Roy': 0.05,  
'Randy': 0.01111111111111112,  
'Unknown': 0.00555555555555556,  
'Women': 0.00555555555555556},  
(3, 16): {'Michael': 0.2549019607843137,  
'Kevin': 0.027450980392156862,  
'Ryan': 0.06274509803921569,  
'Dwight': 0.09803921568627451,  
'Roy': 0.03137254901960784,  
'Pam': 0.11372549019607843,  
'Jim': 0.0784313725490196,  
'Kelly': 0.043137254901960784,  
'College Student': 0.00392156862745098,  
'Karen': 0.023529411764705882,  
'Stanley': 0.00784313725490196,  
'Angela': 0.0196078431372549,  
'Toby': 0.011764705882352941,  
'Business Student #1': 0.01568627450980392,  
'Creed': 0.03137254901960784,  
'Business Student #2': 0.011764705882352941,  
'Business Student #3': 0.00784313725490196,  
'Meredith': 0.047058823529411764,  
'Woman': 0.01568627450980392,  
'Kenny': 0.011764705882352941,  
'Oscar': 0.03529411764705882,  
'Gil': 0.01568627450980392,  
'Artist': 0.00392156862745098,  
'Student 1': 0.00392156862745098,  
'Student 2': 0.0196078431372549,  
'Student 3': 0.00392156862745098},  
(3, 17): {'Michael': 0.25,  
'Dwight': 0.10294117647058823,  
'Jim': 0.06470588235294118,  
'Pam': 0.07058823529411765,  
'Kevin': 0.03529411764705882,  
'Jan': 0.13823529411764707,  
'Roy': 0.07058823529411765,  
'Rachel': 0.03235294117647059,  
'Kelly': 0.011764705882352941,  
'Kenny': 0.020588235294117647,  
'Everyone': 0.0029411764705882353,  
'Angela': 0.008823529411764706,  
'Dan Gore': 0.0029411764705882353,
```

```
'David': 0.023529411764705882,  
'Bartender': 0.0029411764705882353,  
'Man': 0.0029411764705882353,  
'Karen': 0.041176470588235294,  
'Ryan': 0.03529411764705882,  
'Student 1': 0.0029411764705882353,  
'Creed': 0.0058823529411764705,  
'Student 2': 0.0029411764705882353,  
'Toby': 0.014705882352941176,  
'Child': 0.0058823529411764705,  
'Waiter': 0.008823529411764706,  
'Meredith': 0.0058823529411764705,  
'Stanley': 0.014705882352941176,  
'Oscar': 0.0029411764705882353,  
'Melissa': 0.01764705882352941},  
(3, 18): {'Karen': 0.0449438202247191,  
'Jim': 0.1151685393258427,  
'Kevin': 0.02247191011235955,  
'Roy': 0.02247191011235955,  
'Pam': 0.0449438202247191,  
'Dwight': 0.05056179775280899,  
'Michael': 0.300561797752809,  
'Jan': 0.08426966292134831,  
'Toby': 0.047752808988764044,  
'Oscar': 0.011235955056179775,  
'Angela': 0.03089887640449438,  
'Kelly': 0.03932584269662921,  
'Ryan': 0.025280898876404494,  
'Darryl': 0.12078651685393259,  
'Phyllis': 0.011235955056179775,  
'Stanley': 0.011235955056179775,  
'Creed': 0.008426966292134831,  
'Hunter': 0.0028089887640449437,  
'Andy': 0.0056179775280898875},  
(3, 19): {'Andy': 0.08808290155440414,  
'Pam': 0.054404145077720206,  
'Jim': 0.08031088082901554,  
'Dwight': 0.18134715025906736,  
'Michael': 0.26424870466321243,  
'Darryl': 0.08290155440414508,  
'Lonny': 0.031088082901554404,  
'Madge': 0.0051813471502590676,  
'Kevin': 0.05699481865284974,  
'Guy': 0.0025906735751295338,  
'Oscar': 0.007772020725388601,  
'Darry': 0.0025906735751295338,  
'Toby': 0.02072538860103627,  
'Ryan': 0.023316062176165803,  
'Kelly': 0.02849740932642487,  
'Karen': 0.012953367875647668,  
'Everyone': 0.0051813471502590676,  
'Micheal': 0.0025906735751295338,  
'Creed': 0.010362694300518135,  
'Stanley': 0.012953367875647668,  
'Angela': 0.012953367875647668,  
'Phyllis': 0.007772020725388601,  
'Larry': 0.0051813471502590676},  
(3, 20): {'Jim': 0.18592964824120603,  
'Dwight': 0.10552763819095477,  
'Pam': 0.04020100502512563,  
'Phyllis': 0.002512562814070352,  
'Stanley': 0.002512562814070352,  
'Michael': 0.1708542713567839,  
'Ryan': 0.007537688442211055,
```

```
'Karen': 0.010050251256281407,  
'Creed': 0.03768844221105527,  
'Oscar': 0.022613065326633167,  
'Angela': 0.06281407035175879,  
'Kelly': 0.06281407035175879,  
'Andy': 0.1407035175879397,  
'Kevin': 0.02512562814070352,  
'Chad Lite': 0.022613065326633167,  
'Jamie': 0.01507537688442211,  
'Barbara': 0.035175879396984924,  
'School Official': 0.010050251256281407,  
'Barbara Allen': 0.010050251256281407,  
'Spanish Teacher': 0.007537688442211055,  
'Denise': 0.022613065326633167},  
(3, 21): {'Jim': 0.1021671826625387,  
'Dwight': 0.14241486068111456,  
'Pam': 0.11145510835913312,  
'Phyllis': 0.03715170278637771,  
'Andy': 0.04953560371517028,  
'Angela': 0.034055727554179564,  
'Creed': 0.018575851393188854,  
'Ryan': 0.015479876160990712,  
'Michael': 0.2848297213622291,  
'Kevin': 0.034055727554179564,  
'Toby': 0.021671826625386997,  
'Jan': 0.05263157894736842,  
'Hunter': 0.0030959752321981426,  
'Karen': 0.04643962848297214,  
'Meredith': 0.015479876160990712,  
'Kelly': 0.021671826625386997,  
'Stanley': 0.006191950464396285,  
'Bob': 0.0030959752321981426},  
(3, 22): {'Michael': 0.3972602739726027,  
'Dwight': 0.136986301369863,  
'Pam': 0.0821917808219178,  
'David': 0.024657534246575342,  
'Meredith': 0.019178082191780823,  
'Oscar': 0.0136986301369863,  
'Toby': 0.010958904109589041,  
'Kevin': 0.01643835616438356,  
'Stanley': 0.03287671232876712,  
'Angela': 0.021917808219178082,  
'Jim': 0.0821917808219178,  
'Andy': 0.057534246575342465,  
'Kelly': 0.024657534246575342,  
'Karen': 0.024657534246575342,  
'Ryan': 0.0136986301369863,  
'Phyllis': 0.0136986301369863,  
'Creed': 0.005479452054794521,  
'Group': 0.01643835616438356,  
'All': 0.0027397260273972603,  
'Everyone': 0.0027397260273972603},  
(3, 23): {'Michael': 0.2261029411764706,  
'David': 0.08639705882352941,  
'Kevin': 0.03125,  
'Jim': 0.11948529411764706,  
'Meredith': 0.011029411764705883,  
'Andy': 0.05514705882352941,  
'Pam': 0.09375,  
'Dwight': 0.12867647058823528,  
'Karen': 0.07352941176470588,  
'Oscar': 0.022058823529411766,  
'Stanley': 0.012867647058823529,  
'Kelly': 0.012867647058823529,
```



```
'Creed': 0.0055147058823529415,
'Ryan': 0.007352941176470588,
'Angela': 0.011029411764705883,
'Jan': 0.07904411764705882,
'Phyllis': 0.009191176470588236,
'Hunter': 0.011029411764705883,
'Everyone': 0.001838235294117647,
'Receptionist': 0.001838235294117647}},
(4, 1): {'Michael': 0.2857142857142857,
'IT Tech Guy': 0.005357142857142857,
'Pam': 0.15,
'Jim': 0.09464285714285714,
'Kevin': 0.0375,
'Oscar': 0.025,
'Dwight': 0.10178571428571428,
'Stanley': 0.017857142857142856,
'Andy': 0.017857142857142856,
'Angela': 0.08928571428571429,
'Ryan': 0.014285714285714285,
'Phyllis': 0.01607142857142857,
'Kelly': 0.0125,
'Nurse': 0.005357142857142857,
'Meredith': 0.044642857142857144,
'Creed': 0.01607142857142857,
'Toby': 0.019642857142857142,
'Darryl': 0.008928571428571428,
'Intern': 0.008928571428571428,
'Jan': 0.0125,
'Elizabeth': 0.005357142857142857,
'Waitress': 0.0017857142857142857,
'Someone': 0.0017857142857142857,
'Bob Vance': 0.0017857142857142857,
'Pediatrician': 0.005357142857142857}},
(4, 2): {'Pam': 0.0910569105691057,
'Jim': 0.07804878048780488,
'Michael': 0.25691056910569104,
'Toby': 0.02926829268292683,
'Angela': 0.03739837398373984,
'Dwight': 0.12032520325203253,
'Phyllis': 0.02113821138211382,
'Andy': 0.022764227642276424,
'Kevin': 0.026016260162601626,
'Kelly': 0.03902439024390244,
'Ryan': 0.13821138211382114,
'Creed': 0.024390243902439025,
'Stanley': 0.008130081300813009,
'Jan': 0.027642276422764227,
'Oscar': 0.013008130081300813,
'Robert Dunder': 0.01788617886178862,
'Amy': 0.004878048780487805,
'GPS': 0.0065040650406504065,
'Larry Myers': 0.00975609756097561,
'Ex-client': 0.027642276422764227}},
(4, 3): {'Michael': 0.2613065326633166,
'Jim': 0.11725293132328309,
'Pam': 0.051926298157453935,
'Andy': 0.07872696817420435,
'Oscar': 0.020100502512562814,
'Kevin': 0.02847571189279732,
'Everyone': 0.0016750418760469012,
'Meredith': 0.023450586264656615,
'Dwight': 0.1474036850921273,
'Kelly': 0.020100502512562814,
'Stanley': 0.011725293132328308,
```

```
'Angela': 0.08710217755443886,  
'Phyllis': 0.01507537688442211,  
'Ryan': 0.011725293132328308,  
'Voice of Thomas Dean': 0.0016750418760469012,  
'sAndy': 0.0016750418760469012,  
'DunMiff/sys': 0.010050251256281407,  
'DwightKSchrute': 0.005025125628140704,  
'Tech Guy': 0.0016750418760469012,  
'Jan': 0.010050251256281407,  
'Pam and Jim': 0.0016750418760469012,  
'Darryl': 0.01507537688442211,  
'Angels': 0.0016750418760469012,  
'All': 0.008375209380234505,  
'Pizza guy': 0.03685092127303183,  
'Manager': 0.0016750418760469012,  
'Voice #1 on phone': 0.0033500837520938024,  
'Voice #2 on phone': 0.0016750418760469012,  
'Bartender': 0.0016750418760469012,  
'Man': 0.006700167504187605,  
'Creed': 0.0016750418760469012,  
'Toby': 0.01340033500837521},  
(4, 4): {'Michael': 0.28545780969479356,  
'Pam': 0.10053859964093358,  
'Micahel': 0.0017953321364452424,  
'Jan': 0.0718132854578097,  
'Michae': 0.0017953321364452424,  
'Ryan': 0.03770197486535009,  
'Jim': 0.0933572710951526,  
'Dwight': 0.09515260323159784,  
'Angela': 0.017953321364452424,  
'Kevin': 0.02154398563734291,  
'Nick': 0.02333931777378815,  
'Mose': 0.02333931777378815,  
'Co-Worker 1': 0.0017953321364452424,  
'Stanely': 0.003590664272890485,  
'Stanley': 0.012567324955116697,  
'Micael': 0.0017953321364452424,  
'Vikram': 0.019748653500897665,  
'Co-Worker 2': 0.005385996409335727,  
'Co-Worker 3': 0.005385996409335727,  
'Kelly': 0.02333931777378815,  
'Darryl': 0.017953321364452424,  
'Creed': 0.012567324955116697,  
'Andy': 0.04488330341113106,  
'Oscar': 0.05745062836624776,  
'Phyllis': 0.005385996409335727,  
'Toby': 0.003590664272890485,  
'Mr. Figaro': 0.00718132854578097,  
'Meredith': 0.0017953321364452424,  
'Oscar and Stanley': 0.0017953321364452424},  
(4, 5): {'Michael': 0.3420074349442379,  
'Phyllis': 0.026022304832713755,  
'Andy': 0.07806691449814127,  
'Jim': 0.17472118959107807,  
'Pam': 0.08178438661710037,  
'Ad guy 1': 0.04460966542750929,  
'Ad guy 2': 0.022304832713754646,  
'Stanley': 0.0037174721189591076,  
'Kevin': 0.011152416356877323,  
'Dwight': 0.040892193308550186,  
'Receptionist': 0.0037174721189591076,  
'Ryan': 0.02973977695167286,  
'David Wallace': 0.011152416356877323,  
'Oscar': 0.0037174721189591076,
```

```
'Meredith': 0.011152416356877323,  
'Creed': 0.007434944237918215,  
'Angela': 0.007434944237918215,  
'Darryl': 0.03717472118959108,  
'Andy, Creed, Kevin, Kelly, Darryl': 0.0037174721189591076,  
'Andy, Creed, Kevin, Kelly': 0.01858736059479554,  
'Both': 0.0037174721189591076,  
'Everyone': 0.011152416356877323,  
'Bartender': 0.01486988847583643,  
'Michael's Ad': 0.0037174721189591076,  
'Toby': 0.007434944237918215},  
(4, 6): {'Rolando': 0.006172839506172839,  
'Karen': 0.07716049382716049,  
'Michael': 0.2777777777777778,  
'Dwight': 0.13580246913580246,  
'Stanley': 0.030864197530864196,  
'All': 0.0030864197530864196,  
'Jim': 0.24074074074074073,  
'Pam': 0.08024691358024691,  
'Oscar': 0.037037037037037035,  
'Ben': 0.012345679012345678,  
'Dwight and Michael': 0.0030864197530864196,  
'Michael and Dwight': 0.006172839506172839,  
'Toby': 0.030864197530864196,  
'Andy': 0.037037037037037035,  
'Kevin': 0.006172839506172839,  
'Phyllis': 0.006172839506172839,  
'Angela': 0.0030864197530864196,  
'Meredith': 0.0030864197530864196,  
'Security guard': 0.0030864197530864196},  
(4, 7): {'Toby': 0.058394160583941604,  
'Meredith': 0.01824817518248175,  
'Michael': 0.29927007299270075,  
'Pam': 0.08394160583941605,  
'Phyllis': 0.014598540145985401,  
'Jim': 0.2518248175182482,  
'Dwight': 0.13138686131386862,  
'Angela': 0.025547445255474453,  
'Kelly': 0.0036496350364963502,  
'Oscar': 0.025547445255474453,  
'Creed': 0.043795620437956206,  
'Andy': 0.025547445255474453,  
'Kevin': 0.0072992700729927005,  
'Stanley': 0.0072992700729927005,  
'Everybody': 0.0036496350364963502},  
(4, 8): {'Oscar': 0.013333333333333334,  
'Michael': 0.2966666666666667,  
'Kevin': 0.013333333333333334,  
'Pam': 0.08333333333333333,  
'Jan': 0.1,  
'Ryan': 0.03333333333333333,  
'Lester': 0.0866666666666667,  
'Darryl': 0.01,  
'Jim': 0.09,  
'Kelly': 0.05,  
'Diane Kelly': 0.06,  
'Diane': 0.03333333333333333,  
'Toby': 0.013333333333333334,  
'Deposition Reporter': 0.01,  
'Man': 0.016666666666666666,  
'Meredith': 0.003333333333333335,  
'Dwight': 0.016666666666666666,  
'Council': 0.003333333333333335,  
'David': 0.01,
```

```
'David Wallace': 0.0033333333333333335,  
'Creed': 0.01,  
'Stanley': 0.01,  
'Phyllis': 0.01,  
'Angela': 0.0033333333333333335,  
'Andy': 0.02},  
(4, 9): {'Stanley': 0.0030211480362537764,  
'Phyllis': 0.0030211480362537764,  
'Michael': 0.30513595166163143,  
'Jim': 0.1268882175226586,  
'Dwight': 0.054380664652567974,  
'Andy': 0.04229607250755287,  
'Jan': 0.2719033232628399,  
'Pam': 0.10574018126888217,  
'Angela': 0.04229607250755287,  
'All': 0.0030211480362537764,  
'Hunter's CD': 0.0030211480362537764,  
'Michae': 0.0030211480362537764,  
'Woman': 0.015105740181268883,  
'Officer 1': 0.00906344410876133,  
'Officer 2': 0.006042296072507553,  
'Officer': 0.0030211480362537764,  
'Neighbor': 0.0030211480362537764},  
(4, 10): {'Pam': 0.15217391304347827,  
'Jim': 0.09420289855072464,  
'Oscar': 0.007246376811594203,  
'Andy': 0.050724637681159424,  
'Kevin': 0.07246376811594203,  
'Michael': 0.36231884057971014,  
'Creed': 0.010869565217391304,  
'Phyllis': 0.03260869565217391,  
'Angela': 0.014492753623188406,  
'Dwight': 0.07971014492753623,  
'Stanley': 0.0036231884057971015,  
'Wendy's phone operator': 0.018115942028985508,  
'Margaret': 0.028985507246376812,  
'Coffee shop worker': 0.0036231884057971015,  
'Jan [on phone]': 0.0036231884057971015,  
'Bob Vance': 0.0036231884057971015,  
'W.B. Jones': 0.014492753623188406,  
'Paul Faust': 0.0036231884057971015,  
'Bill Cress': 0.0036231884057971015,  
'Paul': 0.007246376811594203,  
'Michael/Dwight': 0.0036231884057971015,  
'Kelly': 0.025362318840579712,  
'Toby': 0.0036231884057971015},  
(4, 11): {'Pam': 0.04696132596685083,  
'Michael': 0.287292817679558,  
'Dwight': 0.13259668508287292,  
'Jim': 0.11878453038674033,  
'Oscar': 0.022099447513812154,  
'Angela': 0.013812154696132596,  
'Ryan': 0.19337016574585636,  
'Stanley': 0.016574585635359115,  
'Phyllis': 0.013812154696132596,  
'Creed': 0.0055248618784530384,  
'Kelly': 0.013812154696132596,  
'Andy': 0.011049723756906077,  
'Kevin': 0.011049723756906077,  
'Troy': 0.013812154696132596,  
'Waitress': 0.0027624309392265192,  
'Toby': 0.022099447513812154,  
'Girl in Club': 0.013812154696132596,  
'Tall Girl #1': 0.013812154696132596,
```

'All Girls': 0.0027624309392265192,
'Tall Girl #2': 0.0027624309392265192,
'Meredith': 0.0027624309392265192,
'Bartender': 0.0055248618784530384,
'Girl in 2nd club': 0.013812154696132596,
'Hank': 0.016574585635359115,
'Cleaning lady': 0.0027624309392265192},
(4, 12): {'Michael': 0.32142857142857145,
'Pam': 0.09740259740259741,
'Kevin': 0.025974025974025976,
'Jim': 0.10064935064935066,
'Phyllis': 0.02922077922077922,
'Andy': 0.07467532467532467,
'Kelly': 0.01948051948051948,
'Oscar': 0.006493506493506494,
'Dwight': 0.1038961038961039,
'Angela': 0.00974025974025974,
'Stanley': 0.07467532467532467,
'Toby': 0.04220779220779221,
'Creed': 0.003246753246753247,
'Darryl': 0.04220779220779221,
'Ryan': 0.045454545454545456,
'Meredith': 0.003246753246753247},
(4, 13): {'Michael': 0.30158730158730157,
'Oscar': 0.01984126984126984,
'Darryl': 0.023809523809523808,
'Kelly': 0.003968253968253968,
'Dwight': 0.03968253968253968,
'Pam': 0.1349206349206349,
'Michael and Darryl': 0.003968253968253968,
'Jim': 0.08333333333333333,
'Phil Maguire': 0.01984126984126984,
'Andy': 0.05555555555555555,
'Phil': 0.03968253968253968,
'Kevin': 0.03571428571428571,
'Meredith': 0.003968253968253968,
'Phyllis': 0.007936507936507936,
'Creed': 0.015873015873015872,
'Justin': 0.05555555555555555,
'Kid': 0.007936507936507936,
'Angela': 0.015873015873015872,
'Angela and Dwight': 0.003968253968253968,
'Maguire': 0.003968253968253968,
'Woman on mic': 0.003968253968253968,
'Graphics guy': 0.03968253968253968,
'Brad': 0.07142857142857142,
'Air Force recruiter': 0.007936507936507936},
(4, 14): {'Dwight': 0.07941653160453808,
'Jim': 0.12479740680713128,
'Pam': 0.07617504051863858,
'Michael': 0.2706645056726094,
'Toby': 0.08265802269043761,
'Kelly': 0.006482982171799027,
'Angela': 0.027552674230145867,
'Phyllis': 0.03727714748784441,
'Holly': 0.11831442463533225,
'Stanley': 0.008103727714748784,
'Woman over speakerphone': 0.004862236628849271,
'Creed': 0.012965964343598054,
'Kevin': 0.03727714748784441,
'Ryan': 0.008103727714748784,
'Oscar': 0.006482982171799027,
'Meredith': 0.014586709886547812,
'Vance Refrigeration guy': 0.0016207455429497568,

```
'Darryl': 0.004862236628849271,  
'Jan': 0.03889789303079417,  
'Andy': 0.019448946515397084,  
'Holy': 0.0016207455429497568,  
'Hank': 0.0016207455429497568,  
'Troy': 0.009724473257698542,  
'Someone': 0.0016207455429497568,  
'Bob Vance': 0.0016207455429497568,  
'Co-workers': 0.0032414910858995136},  
(5, 1): {'Michael': 0.22847100175746923,  
'Dwight': 0.10720562390158173,  
'Meredith': 0.012302284710017574,  
'Stanley': 0.014059753954305799,  
'Creed': 0.008787346221441126,  
'Darryl': 0.022847100175746926,  
'Andy': 0.054481546572934976,  
'Holly': 0.0984182776801406,  
'Jim': 0.1195079086115993,  
'Kevin': 0.02460456942003515,  
'Pam': 0.0632688927943761,  
'Oscar': 0.0421792618629174,  
'Angela': 0.04569420035149385,  
'Ronnie': 0.005272407732864675,  
'Professor': 0.008787346221441126,  
'Kelly': 0.029876977152899824,  
'Jan': 0.022847100175746926,  
'Phyllis': 0.028119507908611598,  
'Ryan': 0.0351493848857645,  
'Friend': 0.008787346221441126,  
'JIM9334 [screen name]': 0.0017574692442882249,  
'Receptionitis15 [screen name]': 0.0017574692442882249,  
'JIM9334': 0.0035149384885764497,  
'Receptionitis15': 0.0035149384885764497,  
'Micheal': 0.0035149384885764497,  
'Toby': 0.005272407732864675},  
(5, 2): {'Pam': 0.033962264150943396,  
'Jim': 0.10943396226415095,  
'Oscar': 0.026415094339622643,  
'Angela': 0.007547169811320755,  
'Kevin': 0.04905660377358491,  
'Andy': 0.045283018867924525,  
'Dwight': 0.052830188679245285,  
'Michael': 0.24150943396226415,  
'Creed': 0.007547169811320755,  
'Holly': 0.2,  
'Michael & Holly': 0.0037735849056603774,  
'Ryan': 0.045283018867924525,  
'Phyllis': 0.022641509433962263,  
'Kelly': 0.011320754716981131,  
'Stanley': 0.018867924528301886,  
'Meredith': 0.08679245283018867,  
'Dight': 0.0037735849056603774,  
'Micheal': 0.011320754716981131,  
'Kendall': 0.022641509433962263},  
(5, 3): {'Dwight': 0.12540192926045016,  
'Michael': 0.26688102893890675,  
'Jim': 0.09003215434083602,  
'Andy': 0.04180064308681672,  
'Phyllis': 0.022508038585209004,  
'Angela': 0.05144694533762058,  
'Meredith': 0.003215434083601286,  
'Kevin': 0.03858520900321544,  
'Oscar': 0.012861736334405145,  
'Pam': 0.08038585209003216,
```

```
'Holly': 0.04501607717041801,  
'Stanley': 0.006430868167202572,  
'Jan': 0.1639871382636656,  
'Kelly': 0.006430868167202572,  
'Creed': 0.006430868167202572,  
'Darryl': 0.028938906752411574,  
'Toby': 0.00964630225080386},  
(5, 4): {'Receptionist': 0.003215434083601286,  
'Pam': 0.03536977491961415,  
'Michael [on phone]': 0.006430868167202572,  
'Michael': 0.3022508038585209,  
'Holly': 0.1157556270096463,  
'Andy': 0.022508038585209004,  
'Dwight': 0.10610932475884244,  
'Phyllis': 0.07717041800643087,  
'Angela': 0.02572347266881029,  
'Oscar': 0.01607717041800643,  
'Kevin': 0.01607717041800643,  
'Jim': 0.1157556270096463,  
'Pam [on phone]': 0.012861736334405145,  
'Man on phone': 0.003215434083601286,  
'Creed': 0.006430868167202572,  
'Darryl': 0.02572347266881029,  
'Roy': 0.04501607717041801,  
'Hank [the security guard]': 0.003215434083601286,  
'David Wallace': 0.01607717041800643,  
'Bob': 0.03215434083601286,  
'Guy in audience': 0.006430868167202572,  
'All': 0.003215434083601286,  
'Stanley': 0.003215434083601286},  
(5, 5): {'Kelly': 0.016091954022988506,  
'Phyllis': 0.011494252873563218,  
'Ryan': 0.009195402298850575,  
'Oscar': 0.013793103448275862,  
'Creed': 0.004597701149425287,  
'Kevin': 0.011494252873563218,  
'Andy': 0.10114942528735632,  
'Jim': 0.05747126436781609,  
'Pam': 0.05747126436781609,  
'Dwight': 0.08735632183908046,  
'Michael': 0.23218390804597702,  
'Holly': 0.167816091954023,  
'Darryl': 0.12643678160919541,  
'Michael and Holly': 0.0022988505747126436,  
'Michael, Holly, and Darryl': 0.0022988505747126436,  
'Tom': 0.029885057471264367,  
'Pete': 0.034482758620689655,  
'Meredith': 0.0022988505747126436,  
'Stanley': 0.0022988505747126436,  
'Angela': 0.01839080459770115,  
'Holly & Darryl': 0.0022988505747126436,  
'Holly & Michael': 0.0022988505747126436,  
'Michael & Holly': 0.006896551724137931},  
(5, 6): {'Michael': 0.1750599520383693,  
'Dwight': 0.23980815347721823,  
'Darryl': 0.002398081534772182,  
'Andy': 0.06954436450839328,  
'Jim': 0.26618705035971224,  
'Kelly': 0.05515587529976019,  
'Kevin': 0.004796163069544364,  
'Group': 0.002398081534772182,  
'Mother': 0.009592326139088728,  
'Pam': 0.0815347721822542,  
'Alex': 0.023980815347721823,
```

```
'Jim and Pam': 0.002398081534772182,  
'Angela': 0.014388489208633094,  
'Customer': 0.011990407673860911,  
'Ryan': 0.014388489208633094,  
'Meredith': 0.002398081534772182,  
'Kevin & Andy': 0.002398081534772182,  
'Phyllis': 0.009592326139088728,  
'Stanley': 0.009592326139088728,  
'Stanley & Phyllis': 0.002398081534772182},  
(5, 7): {'Michael': 0.23692307692307693,  
'Jim': 0.06769230769230769,  
'Meredith': 0.015384615384615385,  
'Kevin': 0.006153846153846154,  
'Creed': 0.003076923076923077,  
'Phyllis': 0.006153846153846154,  
'Stanley': 0.009230769230769232,  
'David Wallace': 0.043076923076923075,  
'Dwight': 0.04923076923076923,  
'Andy': 0.2123076923076923,  
'Angela': 0.03076923076923077,  
'Oscar': 0.11692307692307692,  
'Stewardess': 0.003076923076923077,  
'Beth': 0.012307692307692308,  
'Ryan': 0.04,  
'Kelly': 0.046153846153846156,  
'Concierge': 0.009230769230769232,  
'Pam': 0.043076923076923075,  
'Marie': 0.015384615384615385,  
'Guy at table': 0.009230769230769232,  
'Guy': 0.003076923076923077,  
'Concierge Marie': 0.006153846153846154,  
'Client': 0.006153846153846154,  
'Dacvid Walalce': 0.003076923076923077,  
'David Wallcve': 0.003076923076923077,  
'Dacvid Wallace': 0.003076923076923077},  
(5, 8): {'Angela': 0.006711409395973154,  
'Kevin': 0.006711409395973154,  
'Dwight': 0.12751677852348994,  
'Jim': 0.1040268456375839,  
'Michael': 0.30201342281879195,  
'Ryan': 0.06040268456375839,  
'Kelly': 0.03355704697986577,  
'Toby': 0.09731543624161074,  
'David': 0.03691275167785235,  
'Pam': 0.087248322147651,  
'Andy': 0.020134228187919462,  
'Phyllis': 0.010067114093959731,  
'Creed': 0.006711409395973154,  
'Oscar': 0.010067114093959731,  
'Meredith': 0.006711409395973154,  
'Vance Refrigeration guy': 0.006711409395973154,  
'Leo': 0.010067114093959731,  
'Vance Refrigeration Guy': 0.013422818791946308,  
'Police Officer 1': 0.03355704697986577,  
'Police Officer 2': 0.020134228187919462},  
(5, 9): {'Oscar': 0.09597523219814241,  
'Michael': 0.30959752321981426,  
'Pam': 0.17956656346749225,  
'Stanley': 0.01238390092879257,  
'Toby': 0.006191950464396285,  
'Jim': 0.09597523219814241,  
'Meredith': 0.0030959752321981426,  
'Creed': 0.0030959752321981426,  
'Andy': 0.05572755417956656,
```



```
'Dwight': 0.08978328173374613,
'Angela': 0.07120743034055728,
'Kevin': 0.009287925696594427,
'Kelly': 0.0030959752321981426,
'Phyllis': 0.006191950464396285,
'Hank': 0.04024767801857585,
'David': 0.018575851393188854},
(5, 10): {'Dwight': 0.1125,
'Jim': 0.10833333333333334,
'Stanley': 0.016666666666666666,
'Phyllis': 0.07916666666666666,
'Michael': 0.2708333333333333,
'Angela': 0.05,
'Meredith': 0.15,
'Pam': 0.025,
'Andy': 0.03333333333333333,
'Guy buying doll': 0.004166666666666667,
'Guy': 0.0125,
'Oscar': 0.02083333333333332,
'Kevin': 0.0125,
'Toby': 0.0625,
'Kelly': 0.004166666666666667,
'Creed': 0.004166666666666667,
'Sasha': 0.004166666666666667,
'Darryl': 0.025,
'Rehab Nurse': 0.004166666666666667},
(5, 11): {'Pam': 0.030927835051546393,
'Michael': 0.17869415807560138,
'Dwight': 0.2268041237113402,
'Phyllis': 0.010309278350515464,
'Jim': 0.11683848797250859,
'Stanley': 0.006872852233676976,
'Oscar': 0.03436426116838488,
'Kevin': 0.027491408934707903,
'Andy': 0.22336769759450173,
'Everyone': 0.003436426116838488,
'Angela': 0.07560137457044673,
'Meredith': 0.020618556701030927,
'David': 0.027491408934707903,
'Creed': 0.006872852233676976,
'Kelly': 0.006872852233676976,
'Everyone watching': 0.003436426116838488},
(5, 12): {'Dwight': 0.2786259541984733,
'Jim': 0.05343511450381679,
'Phyllis': 0.015267175572519083,
'Stanley': 0.019083969465648856,
'Michael': 0.3435114503816794,
'David': 0.03435114503816794,
'Andy': 0.019083969465648856,
'Creed': 0.003816793893129771,
'Kevin': 0.05343511450381679,
'Meredith': 0.007633587786259542,
'Pam': 0.019083969465648856,
'Angela': 0.011450381679389313,
'Entire Prince family': 0.003816793893129771,
'Prince Grandfather': 0.07251908396946564,
'Entire office': 0.003816793893129771,
'Oscar': 0.011450381679389313,
'Kelly': 0.007633587786259542,
'Prince': 0.003816793893129771,
'Linda': 0.007633587786259542,
'Prince Granddaughter': 0.015267175572519083,
'Prince Grandmother': 0.007633587786259542,
'Dwight and Michael': 0.003816793893129771,
```

```
'Prince Son': 0.003816793893129771},
(5, 13): {'Dwight': 0.17548076923076922,
'Angela': 0.038461538461538464,
'Pam': 0.07692307692307693,
'Phyllis': 0.026442307692307692,
'Andy': 0.055288461538461536,
'Kevin': 0.019230769230769232,
'Michael': 0.28365384615384615,
'Everyone': 0.007211538461538462,
'Jim': 0.08413461538461539,
'Stanley': 0.0673076923076923,
'Oscar': 0.026442307692307692,
'Phyllis and Creed': 0.002403846153846154,
'David Wallace': 0.021634615384615384,
'Lawyer': 0.004807692307692308,
'David': 0.002403846153846154,
'Michel': 0.002403846153846154,
'CPR trainer': 0.002403846153846154,
'CPR Trainer': 0.007211538461538462,
'Rose': 0.019230769230769232,
'Creed': 0.009615384615384616,
'Kelly': 0.007211538461538462,
'Jessica Alba': 0.004807692307692308,
'Lily': 0.014423076923076924,
'Sam': 0.014423076923076924,
'Meredith': 0.007211538461538462,
'Group': 0.002403846153846154,
'Darryl': 0.014423076923076924,
'Warehouse Michael': 0.002403846153846154},
(5, 14): {'Michael': 0.2320675105485232,
'Jim': 0.14345991561181434,
'Pam': 0.14767932489451477,
'Kelly': 0.03375527426160337,
'Dwight': 0.10548523206751055,
'Phyllis': 0.012658227848101266,
'Julia': 0.05485232067510549,
'Stanley': 0.029535864978902954,
'Andy': 0.11392405063291139,
'Rolando': 0.008438818565400843,
'Karen': 0.08438818565400844,
'Mark': 0.008438818565400843,
'Oscar': 0.004219409282700422,
'Creed': 0.02109704641350211},
(5, 15): {'Michael': 0.1968503937007874,
'Karen': 0.007874015748031496,
'Pam': 0.14960629921259844,
'Oscar': 0.051181102362204724,
'Kevin': 0.07086614173228346,
'Angela': 0.07480314960629922,
'Meredith': 0.03543307086614173,
'Creed': 0.007874015748031496,
'Dwight': 0.12992125984251968,
'Kelly': 0.07086614173228346,
'Jim': 0.12992125984251968,
'Phyllis': 0.003937007874015748,
'Receptionist': 0.01968503937007874,
'Stanley': 0.007874015748031496,
'A.J.': 0.031496062992125984,
'Woman': 0.003937007874015748,
'Man': 0.003937007874015748,
'All': 0.003937007874015748},
(5, 16): {'Phone Salesman': 0.023333333333333334,
'Pam': 0.10666666666666667,
'Jim': 0.11666666666666667,
```

```
'Michael': 0.2866666666666667,  
'Dwight': 0.10333333333333333,  
'Jim, Pam, Michael and Dwight': 0.00666666666666667,  
'Kevin': 0.05,  
'Kelly': 0.03,  
'Blood Drive Worker': 0.0266666666666667,  
'Blood Girl': 0.05666666666666664,  
'Phyllis': 0.0366666666666667,  
'Hank': 0.003333333333333335,  
'Meredith': 0.01,  
'Bob': 0.03,  
'Oscar': 0.0466666666666667,  
'Angela': 0.01333333333333334,  
'Lynn': 0.02,  
'Blonde': 0.02,  
'Eric': 0.003333333333333335,  
'Girl': 0.003333333333333335,  
'Stanley': 0.0066666666666667},  
(5, 17): {'Pam': 0.07717041800643087,  
'Michael': 0.3633440514469453,  
'Dwight': 0.2282958199356913,  
'Jim': 0.12540192926045016,  
'Andy': 0.03858520900321544,  
'Kevin': 0.03215434083601286,  
'Oscar': 0.022508038585209004,  
'Darryl': 0.00964630225080386,  
'Creed': 0.006430868167202572,  
'Stanley': 0.003215434083601286,  
'David': 0.08038585209003216,  
'Man on phone': 0.003215434083601286,  
'Lynn': 0.00964630225080386},  
(5, 18): {'Dwight': 0.0707070707070707,  
'Michael': 0.3501683501683502,  
'Jim': 0.10101010101010101,  
'Pam': 0.04713804713804714,  
'Charles': 0.22222222222222222,  
'Kelly': 0.02356902356902357,  
'Angela': 0.026936026936026935,  
'Kevin': 0.016835016835016835,  
'Andy': 0.020202020202020204,  
'Stanley': 0.006734006734006734,  
'Oscar': 0.010101010101010102,  
'David': 0.06060606060606061,  
'Stephanie': 0.020202020202020204,  
'Employees': 0.003367003367003367,  
'Phyllis': 0.010101010101010102,  
'Meredith': 0.003367003367003367,  
'Creed': 0.006734006734006734},  
(5, 19): {'Michael': 0.3295880149812734,  
'Kelly': 0.02247191011235955,  
'Oscar': 0.0449438202247191,  
'Everyone': 0.003745318352059925,  
'Pam': 0.14232209737827714,  
'Stanley': 0.026217228464419477,  
'Angela': 0.02247191011235955,  
'Kevin': 0.04868913857677903,  
'Meredith': 0.00749063670411985,  
'Jim': 0.09737827715355805,  
'Andy': 0.052434456928838954,  
'Dwight': 0.0449438202247191,  
'Charles': 0.09363295880149813,  
'Isaac': 0.026217228464419477,  
'Creed': 0.003745318352059925,  
'Phone': 0.003745318352059925,
```

```
'Angela and Kelly': 0.003745318352059925,  
'Phyllis': 0.011235955056179775,  
'Hank': 0.011235955056179775,  
'Toby': 0.003745318352059925},  
(5, 20): {'Jim': 0.11326860841423948,  
'Kevin': 0.032362459546925564,  
'Andy': 0.05177993527508091,  
'Dwight': 0.05501618122977346,  
'Angela': 0.009708737864077669,  
'Stanley': 0.012944983818770227,  
'Pam': 0.21035598705501618,  
'Michael': 0.2524271844660194,  
'Charles': 0.12944983818770225,  
'Kelly': 0.003236245954692557,  
'Phyllis': 0.006472491909385114,  
'Creed': 0.003236245954692557,  
'Micheal': 0.003236245954692557,  
'Vikram': 0.032362459546925564,  
'Ryan': 0.03559870550161812,  
'Supervisor': 0.003236245954692557,  
'Michal': 0.003236245954692557,  
'Nana': 0.032362459546925564,  
'Chares': 0.003236245954692557,  
'Old Woman': 0.003236245954692557,  
'Oscar': 0.003236245954692557},  
(5, 21): {'Michael': 0.1796875,  
'Jim': 0.109375,  
'Pam': 0.17578125,  
'Kelly': 0.01953125,  
'Charles': 0.09765625,  
'Erin': 0.0625,  
'Kevin': 0.0078125,  
'Andy': 0.0703125,  
'Dwight': 0.109375,  
'Ryan': 0.09765625,  
'Toby': 0.01171875,  
'Oscar': 0.01953125,  
'Stanley': 0.01171875,  
'Phyllis': 0.00390625,  
'Man': 0.00390625,  
'Creed': 0.0078125,  
'Meredith': 0.00390625,  
'Dwight and Erin': 0.00390625,  
'Dwight and Andy': 0.00390625},  
(5, 22): {'Michael': 0.3187919463087248,  
'Pam': 0.06040268456375839,  
'Jim': 0.09060402684563758,  
'Andy': 0.1040268456375839,  
'Phyllis': 0.016778523489932886,  
'Dwight': 0.2785234899328859,  
'Charles': 0.04697986577181208,  
'Ryan': 0.030201342281879196,  
'Michael, Pam & Ryan': 0.003355704697986577,  
'Secretary': 0.013422818791946308,  
'Automated phone voice': 0.003355704697986577,  
'Stanley': 0.003355704697986577,  
'Mr. Schofield': 0.02348993288590604,  
'Kelly': 0.003355704697986577,  
'Kevin': 0.003355704697986577},  
(5, 23): {'Michael': 0.2638888888888889,  
'Ryan': 0.08333333333333333,  
'Pam': 0.11458333333333333,  
'Charles': 0.13541666666666666,  
'Jim': 0.10416666666666667,
```

```
'Dwight': 0.086805555555555555,  
'Stanley': 0.003472222222222222,  
'Andy': 0.010416666666666666,  
'Angela': 0.006944444444444444,  
'David Wallace': 0.003472222222222222,  
'David': 0.125,  
'Kelly': 0.006944444444444444,  
'Kevin': 0.003472222222222222,  
'Phyllis': 0.003472222222222222,  
'Financial Guy': 0.03819444444444445,  
'Ty': 0.006944444444444444,  
'Erin': 0.003472222222222222},  
(5, 24): {'Kevin': 0.003134796238244514,  
'Michael': 0.29780564263322884,  
'Ryan': 0.07836990595611286,  
'Pam': 0.09404388714733543,  
'Dwight': 0.1536050156739812,  
'Angela': 0.01567398119122257,  
'Jim': 0.09090909090909091,  
'Oscar': 0.01567398119122257,  
'Erin': 0.03134796238244514,  
'Stanley': 0.03761755485893417,  
'Phyllis': 0.04075235109717868,  
'Andy': 0.03761755485893417,  
'Meredith': 0.025078369905956112,  
'Toby': 0.04075235109717868,  
'Creed': 0.02821316614420063,  
'Kelly': 0.006269592476489028,  
'Darryl': 0.003134796238244514},  
(5, 25): {'Erin': 0.07718120805369127,  
'Dwight': 0.10738255033557047,  
'Pam': 0.06375838926174497,  
'Jim': 0.05704697986577181,  
'Michael': 0.28523489932885904,  
'Ryan': 0.006711409395973154,  
'Angela': 0.05704697986577181,  
'Phyllis': 0.09060402684563758,  
'Oscar': 0.020134228187919462,  
'Andy': 0.053691275167785234,  
'Meredith': 0.003355704697986577,  
'Kevin': 0.050335570469798654,  
'Jessica': 0.010067114093959731,  
'Stanley': 0.006711409395973154,  
'Kelly': 0.03691275167785235,  
'Vance Refrigeration Guy 1': 0.003355704697986577,  
'Vance Refrigeration Guy 2': 0.003355704697986577,  
'VRG 1': 0.013422818791946308,  
'VRG 2': 0.010067114093959731,  
'Creed': 0.010067114093959731,  
'Phyllis': 0.003355704697986577,  
'Bob Vance': 0.006711409395973154,  
'Lynn': 0.02348993288590604},  
(5, 26): {'Erin': 0.01098901098901099,  
'Jim': 0.08791208791208792,  
'Pam': 0.09157509157509157,  
'Dwight': 0.15018315018315018,  
'Michael': 0.20146520146520147,  
'Rolph': 0.03296703296703297,  
'Kevin': 0.018315018315018316,  
'Holly': 0.1391941391941392,  
'AJ': 0.029304029304029304,  
'Charles': 0.04395604395604396,  
'Andy': 0.04395604395604396,  
'Man': 0.003663003663003663,
```

```
'Phyllis': 0.014652014652014652,  
'Woman': 0.003663003663003663,  
'Stanley': 0.007326007326007326,  
'Angela': 0.01098901098901099,  
'Meredith': 0.007326007326007326,  
'David': 0.047619047619047616,  
'Toby': 0.007326007326007326,  
'Kendall': 0.007326007326007326,  
'Oscar': 0.007326007326007326,  
'Both': 0.003663003663003663,  
'Man from Buffalo': 0.01098901098901099,  
'Woman from Buffalo': 0.007326007326007326,  
'Nurse': 0.01098901098901099},  
(6, 1): {'Michael': 0.286144578313253,  
'Dwight & Andy': 0.006024096385542169,  
'Andy': 0.1144578313253012,  
'Dwight': 0.060240963855421686,  
'Jim': 0.12650602409638553,  
'Andy & Michael': 0.0030120481927710845,  
'Michael & Dwight': 0.006024096385542169,  
'Female Intern': 0.006024096385542169,  
'Female intern': 0.0030120481927710845,  
'Pam': 0.08132530120481928,  
'Meredith': 0.012048192771084338,  
'Oscar': 0.030120481927710843,  
'Kelly': 0.02710843373493976,  
'Phyllis': 0.02108433734939759,  
'Maurie': 0.030120481927710843,  
'Dwight, Jim & Pam': 0.0030120481927710845,  
'Eric': 0.024096385542168676,  
'Kevin': 0.04216867469879518,  
'Stanley': 0.03614457831325301,  
'Erin': 0.02108433734939759,  
'Angela': 0.015060240963855422,  
'Creed': 0.018072289156626505,  
'Toby': 0.0030120481927710845,  
'Everyone': 0.009036144578313253,  
'Ryan': 0.0030120481927710845,  
'Jim & Pam': 0.0030120481927710845,  
'Megan': 0.009036144578313253},  
(6, 2): {'Michael': 0.26865671641791045,  
'Oscar': 0.026119402985074626,  
'David Wallace': 0.0037313432835820895,  
'David': 0.12686567164179105,  
'Jim': 0.0708955223880597,  
'Pam': 0.08955223880597014,  
'Darryl': 0.055970149253731345,  
'Toby': 0.09701492537313433,  
'Dwight': 0.11940298507462686,  
'Creed': 0.014925373134328358,  
'Kelly': 0.011194029850746268,  
'Andy': 0.026119402985074626,  
'Phyllis': 0.007462686567164179,  
'Stanley': 0.007462686567164179,  
'Kevin': 0.0037313432835820895,  
'Erin': 0.011194029850746268,  
'Ryan': 0.018656716417910446,  
'Gwenneth': 0.007462686567164179,  
'Meredith': 0.022388059701492536,  
'Angela': 0.011194029850746268},  
(6, 3): {'Dwight': 0.09570957095709572,  
'Michael': 0.2838283828382838,  
'Jim': 0.30033003300330036,  
'Erin': 0.009900990099009901,
```

```
'Stanley': 0.009900990099009901,  
'Oscar': 0.039603960396039604,  
'Phyllis': 0.0429042904290429,  
'Pam': 0.056105610561056105,  
'Ryan': 0.0165016501650165,  
'Kelly': 0.013201320132013201,  
'David Wallace': 0.019801980198019802,  
'Creed': 0.009900990099009901,  
'Meredith': 0.0297029702970297,  
'Kevin': 0.0462046204620462,  
'Angela': 0.0165016501650165,  
'Andy': 0.009900990099009901},  
(6, 4): {'Pam': 0.12681159420289856,  
'Jim': 0.10144927536231885,  
'Dwight': 0.15217391304347827,  
'Phyllis': 0.005434782608695652,  
'Meredith': 0.010869565217391304,  
'Andy': 0.059782608695652176,  
'Michael': 0.23369565217391305,  
'Erin': 0.018115942028985508,  
'Kevin': 0.05434782608695652,  
'Angela': 0.021739130434782608,  
'Micheal': 0.0018115942028985507,  
'Kelly': 0.005434782608695652,  
'Front Desk Clerk': 0.018115942028985508,  
'Stanley': 0.012681159420289856,  
'Toby': 0.007246376811594203,  
'Mr. Halpert': 0.009057971014492754,  
'Mema': 0.02355072463768116,  
'Mr. Beesly': 0.0036231884057971015,  
'Little Girl': 0.0018115942028985507,  
'Kids': 0.0018115942028985507,  
'Oscar': 0.016304347826086956,  
'Penny': 0.019927536231884056,  
'Ryan': 0.005434782608695652,  
'Isabel': 0.019927536231884056,  
'Pete': 0.010869565217391304,  
'Tom': 0.010869565217391304,  
'Everyone': 0.0018115942028985507,  
'Michael and Dwight': 0.0018115942028985507,  
'Hotel Employee': 0.007246376811594203,  
'Hotel Manager': 0.007246376811594203,  
'Pam's mom': 0.019927536231884056,  
'Tom Halpert': 0.0018115942028985507,  
'Michel': 0.0018115942028985507,  
'Pete Halpert': 0.0018115942028985507,  
'Tom and Pete': 0.0018115942028985507,  
'Pam's dad': 0.0018115942028985507},  
(6, 5): {'Michael': 0.34560906515580736,  
'Toby': 0.0084985835694051,  
'Andy': 0.16147308781869688,  
'Creed': 0.0028328611898017,  
'Meredith': 0.0084985835694051,  
'Ryan': 0.0113314447592068,  
'Erin': 0.019830028328611898,  
'Grotti': 0.08498583569405099,  
'Kevin': 0.04815864022662889,  
'Dwight': 0.141643059490085,  
'Oscar': 0.05099150141643059,  
'Andy and Dwight': 0.0028328611898017,  
'Phyllis': 0.0028328611898017,  
'Jim': 0.039660056657223795,  
'Pam': 0.014164305949008499,  
'Waitress': 0.019830028328611898,
```

```
'Credit card rep': 0.0028328611898017,  
'Rep': 0.0169971671388102,  
'Woman': 0.0113314447592068,  
'Kid': 0.0028328611898017,  
'Dwight and Andy': 0.0028328611898017},  
(6, 6): {'Erin': 0.0380952380952381,  
'Kevin': 0.01904761904761905,  
'Kelly': 0.031746031746031744,  
'Jim': 0.19047619047619047,  
'Pam': 0.19047619047619047,  
'Michael': 0.2698412698412698,  
'Dwight': 0.09523809523809523,  
'Meredith': 0.012698412698412698,  
'Toby': 0.047619047619047616,  
'Andy': 0.02857142857142857,  
'Various': 0.0031746031746031746,  
'Angela': 0.015873015873015872,  
'Oscar': 0.01904761904761905,  
'Phyllis': 0.006349206349206349,  
'Creed': 0.0031746031746031746,  
'Ryan': 0.025396825396825397,  
'Stanley': 0.0031746031746031746},  
(6, 7): {'Michael': 0.2664576802507837,  
'Kids': 0.006269592476489028,  
'Jim': 0.1536050156739812,  
'Darryl': 0.0219435736677116,  
'Angela': 0.03134796238244514,  
'Kelly': 0.006269592476489028,  
'Creed': 0.009404388714733543,  
'Ryan': 0.003134796238244514,  
'Meredith': 0.025078369905956112,  
'Dwight': 0.0438871473354232,  
'Erin': 0.05329153605015674,  
'Pam': 0.12225705329153605,  
'Andy': 0.11598746081504702,  
'Phyllis': 0.02821316614420063,  
'Secretary': 0.006269592476489028,  
'Stanley': 0.009404388714733543,  
'Oscar': 0.034482758620689655,  
'Kevin': 0.03134796238244514,  
'Customer': 0.012539184952978056,  
'Keena Gifford': 0.018808777429467086},  
(6, 8): {'Dwight': 0.1362397820163488,  
'Stanley': 0.0027247956403269754,  
'Andy': 0.07629427792915532,  
'Phyllis': 0.005449591280653951,  
'Michael': 0.3106267029972752,  
'Pam': 0.1907356948228883,  
'Erin': 0.008174386920980926,  
'Ryan': 0.021798365122615803,  
'Helene': 0.1008174386920981,  
'Angela': 0.005449591280653951,  
'Kevin': 0.01634877384196185,  
'Kelly': 0.013623978201634877,  
'Jim': 0.07084468664850137,  
'Creed': 0.005449591280653951,  
'Hostess': 0.0027247956403269754,  
'Oscar': 0.008174386920980926,  
'Michel': 0.0027247956403269754,  
'Toby': 0.01907356948228883,  
'Meredith': 0.0027247956403269754},  
(6, 9): {'Dwight': 0.1214574898785425,  
'Jim': 0.1902834008097166,  
'Kevin': 0.044534412955465584,
```



```
'Michael': 0.27125506072874495,  
'Andy': 0.09716599190283401,  
'Erin': 0.06072874493927125,  
'Pam': 0.048582995951417005,  
'Oscar': 0.032388663967611336,  
'Phyllis': 0.020242914979757085,  
'Stanley': 0.024291497975708502,  
"David Wallace's Secretary": 0.008097165991902834,  
'Kelly': 0.004048582995951417,  
'Meredith': 0.016194331983805668,  
'Voice on CD player': 0.008097165991902834,  
'Angela': 0.024291497975708502,  
'Ryan': 0.004048582995951417,  
'Creed': 0.008097165991902834,  
'David': 0.016194331983805668},  
(6, 10): {'Oscar': 0.06741573033707865,  
'Dwight': 0.09737827715355805,  
'Jim': 0.13857677902621723,  
'Pam': 0.0449438202247191,  
'Stanley': 0.0149812734082397,  
'Andy': 0.052434456928838954,  
'Michael': 0.26591760299625467,  
'Meredith': 0.003745318352059925,  
'Phyllis': 0.026217228464419477,  
'Kevin': 0.0149812734082397,  
'Erin': 0.011235955056179775,  
'Limo Driver': 0.00749063670411985,  
'Jim & Pam': 0.003745318352059925,  
'Ryan': 0.06741573033707865,  
'Laurie': 0.018726591760299626,  
'David': 0.052434456928838954,  
'Alan': 0.0449438202247191,  
'Registrar': 0.003745318352059925,  
'Security': 0.00749063670411985,  
'Woman in line': 0.011235955056179775,  
'Man in line': 0.003745318352059925,  
'Shareholder': 0.003745318352059925,  
'Female Shareholder': 0.003745318352059925,  
'Second Shareholder': 0.003745318352059925,  
'Creed': 0.003745318352059925,  
'Third Shareholder': 0.003745318352059925,  
'Fourth Shareholder': 0.003745318352059925,  
"O'Keefe": 0.018726591760299626},  
(6, 11): {'Andy': 0.0830188679245283,  
'Michael': 0.25660377358490566,  
'Jim': 0.14339622641509434,  
'Erin': 0.07924528301886792,  
'Dwight': 0.13584905660377358,  
'Pam': 0.052830188679245285,  
'Phyllis': 0.01509433962264151,  
'Stanley': 0.007547169811320755,  
'Mikela': 0.033962264150943396,  
'Students': 0.01509433962264151,  
'Teacher': 0.01509433962264151,  
'Lefevre': 0.04150943396226415,  
'Kevin': 0.022641509433962263,  
'Oscar': 0.007547169811320755,  
'Everyone': 0.0037735849056603774,  
'Angela': 0.011320754716981131,  
'Zion': 0.0037735849056603774,  
'Creed': 0.0037735849056603774,  
'Deliveryman': 0.0037735849056603774,  
'Kelly': 0.0037735849056603774,  
'Stephanie': 0.007547169811320755,
```

'David Wallace': 0.0037735849056603774,
'David': 0.03018867924528302,
'Michael and Erin': 0.0037735849056603774,
'Ryan': 0.01509433962264151},
(6, 12): {'Dwight': 0.11077844311377245,
'Jim': 0.11676646706586827,
'Everyone': 0.0029940119760479044,
'Oscar': 0.038922155688622756,
'Ryan': 0.023952095808383235,
'Meredith': 0.008982035928143712,
'Phyllis': 0.08083832335329341,
'Pam': 0.04790419161676647,
'Andy': 0.04790419161676647,
'Stanley': 0.014970059880239521,
'Erin': 0.03293413173652695,
'Kelly': 0.008982035928143712,
'Kevin': 0.038922155688622756,
'Creed': 0.005988023952095809,
'Michael': 0.2844311377245509,
'Group': 0.005988023952095809,
'Daryl': 0.008982035928143712,
'Office': 0.0029940119760479044,
'Toby': 0.017964071856287425,
'Kelly and Erin': 0.0029940119760479044,
'Matt': 0.011976047904191617,
'Angela': 0.017964071856287425,
'David': 0.05688622754491018,
'Stephanie': 0.0029940119760479044,
'Bob Vance': 0.0029940119760479044,
'Bob': 0.0029940119760479044},
(6, 13): {'Michael': 0.33587786259541985,
'Eric': 0.1984732824427481,
'Computron': 0.07633587786259542,
'Andy': 0.007633587786259542,
'Pam': 0.03816793893129771,
'Fake Stanley': 0.007633587786259542,
'Ryan': 0.007633587786259542,
'Dwight': 0.1297709923664122,
'Toby': 0.13740458015267176,
'Kevin': 0.015267175572519083,
'Angela': 0.015267175572519083,
'Both': 0.030534351145038167},
(6, 14): {'Michael': 0.3106060606060606,
'Erin': 0.022727272727272728,
'Oscar': 0.01893939393939394,
'Dwight': 0.03409090909090909,
'Pam': 0.0946969696969697,
'Creed': 0.003787878787878788,
'Gabe': 0.06818181818181818,
'Jim': 0.09848484848484848,
'Andy': 0.03787878787878788,
'Andy & Erin': 0.007575757575757576,
'Christian Slater': 0.003787878787878788,
'Jo Bennett': 0.003787878787878788,
'Meredith': 0.007575757575757576,
'Angela': 0.007575757575757576,
'Stanley': 0.003787878787878788,
'Toby': 0.007575757575757576,
'Jo': 0.030303030303030304,
'Jerry': 0.05303030303030303,
'David': 0.12878787878787878,
'Teddy Wallace': 0.003787878787878788,
'Mrs. Wallace': 0.011363636363636364,
'Everyone': 0.003787878787878788,

```
'Phyllis': 0.003787878787878788,  
'Kevin': 0.003787878787878788,  
'All': 0.003787878787878788,  
'Teddy': 0.022727272727272728,  
'Both': 0.003787878787878788},  
(6, 15): {'Hotel Employee': 0.030508474576271188,  
'Michael': 0.2305084745762712,  
'Dwight': 0.13220338983050847,  
'Michael and Dwight': 0.003389830508474576,  
'Gabe': 0.01694915254237288,  
'Jo': 0.11186440677966102,  
'Andy': 0.08135593220338982,  
'Kevin': 0.01694915254237288,  
'Angela': 0.003389830508474576,  
'Meredith': 0.013559322033898305,  
'Jim': 0.11186440677966102,  
'Erin': 0.07796610169491526,  
'Kelly': 0.03728813559322034,  
'Pam': 0.01694915254237288,  
'Oscar': 0.020338983050847456,  
'Ryan': 0.06440677966101695,  
'Nick': 0.01694915254237288,  
'Phyllis': 0.013559322033898305},  
(6, 16): {'Pam': 0.2016,  
'Dwight': 0.0752,  
'Jim': 0.2144,  
'Kevin': 0.0464,  
'Meredith': 0.0096,  
'Michael': 0.1872,  
'Erin': 0.056,  
'Nick': 0.0032,  
'Angela': 0.0304,  
'Kelly': 0.0048,  
'Andy': 0.04,  
'Stanley': 0.0048,  
'Phyllis': 0.0096,  
'Ryan': 0.0032,  
'Oscar': 0.0048,  
'Dwight, Jim and Michael': 0.0016,  
'Creed': 0.0016,  
'Toby': 0.0016,  
'Policeman': 0.0032,  
'Hospital employee': 0.0128,  
'Nurse': 0.0304,  
'Doctor': 0.0048,  
'Everyone': 0.0016,  
'(Pam's mom) Heleen': 0.0016,  
'Helene': 0.008,  
'Kathy': 0.0048,  
'Dale': 0.0016,  
'Clark': 0.0208,  
'Isabelle': 0.0144},  
(6, 17): {'Michael': 0.1863799283154122,  
'Kelly': 0.010752688172043012,  
'Ryan': 0.010752688172043012,  
'Meredith': 0.014336917562724014,  
'Erin': 0.07168458781362007,  
'Jim': 0.14336917562724014,  
'Phyllis': 0.0035842293906810036,  
'Stanley': 0.0035842293906810036,  
'Andy': 0.08602150537634409,  
'Dwight': 0.1039426523297491,  
'Jo': 0.18996415770609318,  
'Pam': 0.0035842293906810036,
```

```
'Angela': 0.010752688172043012,  
'Kevin': 0.010752688172043012,  
'Oscar': 0.014336917562724014,  
'Daryl': 0.04659498207885305,  
'Gabe': 0.010752688172043012,  
'D': 0.0035842293906810036,  
'Andy and Dwight': 0.014336917562724014,  
'Todd Packer': 0.021505376344086023,  
'Warehouse guy 1': 0.010752688172043012,  
'Warehouse guy 2': 0.0035842293906810036,  
'Reid': 0.017921146953405017,  
'Night cleaning crew': 0.0035842293906810036,  
'Meredith, Creed, Oscar and Matt': 0.0035842293906810036},  
(6, 18): {'Michael': 0.302491103202847,  
'Jim': 0.18149466192170818,  
'Stanley': 0.03914590747330961,  
'Dwight': 0.15302491103202848,  
'Phyllis': 0.06405693950177936,  
'Andy': 0.05338078291814947,  
'Angela': 0.021352313167259787,  
'Darryl': 0.03202846975088968,  
'Erin': 0.02491103202846975,  
'Gabe': 0.02491103202846975,  
'Miichael': 0.0035587188612099642,  
'Kelly': 0.028469750889679714,  
'Ryan': 0.010676156583629894,  
'Pam': 0.010676156583629894,  
'Kevin': 0.028469750889679714,  
'Meredith': 0.010676156583629894,  
'Toby': 0.0071174377224199285,  
'Oscar': 0.0035587188612099642},  
(6, 19): {'Dwight': 0.0947075208913649,  
'Michael': 0.20612813370473537,  
'Jim': 0.09192200557103064,  
'Meredith': 0.002785515320334262,  
'Angela': 0.04735376044568245,  
'Creed': 0.002785515320334262,  
'Phyllis': 0.016713091922005572,  
'Everyone': 0.002785515320334262,  
'Oscar': 0.055710306406685235,  
'Stanley': 0.002785515320334262,  
'Matt': 0.013927576601671309,  
'Warehouse Guy': 0.002785515320334262,  
'Darryl': 0.027855153203342618,  
'Andy': 0.09749303621169916,  
'Pam': 0.08635097493036212,  
'Erin': 0.04456824512534819,  
'Kevin': 0.019498607242339833,  
'Julie': 0.033426183844011144,  
'Isabel': 0.05013927576601671,  
'Hide': 0.005571030640668524,  
'Ryan': 0.013927576601671309,  
'Kelly': 0.011142061281337047,  
'Bar Manager': 0.06128133704735376,  
'Bouncer': 0.002785515320334262,  
'Girl at table': 0.005571030640668524},  
(6, 20): {'Cookie Monster': 0.011235955056179775,  
'Andy': 0.09363295880149813,  
'Oscar': 0.02247191011235955,  
'Kevin': 0.0749063670411985,  
'Phyllis': 0.011235955056179775,  
'Dwight': 0.06367041198501873,  
'Ryan': 0.018726591760299626,  
'Kelly': 0.018726591760299626,
```

```
'Angela': 0.018726591760299626,  
'Meredith': 0.033707865168539325,  
'Erin': 0.1947565543071161,  
'Pam': 0.10486891385767791,  
'Jim': 0.0299625468164794,  
'Dwight.': 0.003745318352059925,  
'Michael': 0.17228464419475656,  
'Darryl': 0.011235955056179775,  
'Gabe': 0.08614232209737828,  
'Hayworth's waiter': 0.0149812734082397,  
'Toby': 0.011235955056179775,  
'Oscar's voice from the computer': 0.003745318352059925},  
(6, 21): {'Michael': 0.2621951219512195,  
'Erin': 0.027439024390243903,  
'Jim': 0.11280487804878049,  
'Dwight': 0.13719512195121952,  
'Oscar': 0.027439024390243903,  
'Angela': 0.009146341463414634,  
'Pam': 0.08231707317073171,  
'Donna': 0.11585365853658537,  
'Gabe': 0.04573170731707317,  
'Darryl': 0.012195121951219513,  
'Kelly': 0.08536585365853659,  
'Michael and Donna': 0.003048780487804878,  
'Kevin': 0.024390243902439025,  
'Phyllis': 0.012195121951219513,  
'Creed': 0.003048780487804878,  
'Ryan': 0.012195121951219513,  
'Andy': 0.009146341463414634,  
'Mihael': 0.003048780487804878,  
'Stanley': 0.006097560975609756,  
'Hide': 0.006097560975609756,  
'All': 0.003048780487804878},  
(6, 22): {'Dwight': 0.12337662337662338,  
'Jim': 0.045454545454545456,  
'Pam': 0.13636363636363635,  
'Michael': 0.2987012987012987,  
'Stanley': 0.00974025974025974,  
'Andy': 0.09740259740259741,  
'Darryl': 0.08441558441558442,  
'Meredith': 0.003246753246753247,  
'Kelly': 0.022727272727272728,  
'Ryan': 0.012987012987012988,  
'Oscar': 0.003246753246753247,  
'Gabe': 0.012987012987012988,  
'Donna': 0.11688311688311688,  
'Old lady': 0.003246753246753247,  
'Erin': 0.00974025974025974,  
'Creed': 0.006493506493506494,  
'Glen': 0.003246753246753247,  
'Gym Instructor': 0.003246753246753247,  
'Gym instructor': 0.006493506493506494},  
(6, 23): {'Toby': 0.015337423312883436,  
'Michael': 0.25153374233128833,  
'Everyone': 0.015337423312883436,  
'Jim': 0.06441717791411043,  
'Dwight': 0.11042944785276074,  
'Creed': 0.012269938650306749,  
'Oscar': 0.009202453987730062,  
'Ryan': 0.03374233128834356,  
'Stanley': 0.006134969325153374,  
'Angela': 0.05214723926380368,  
'Pam': 0.09202453987730061,  
'Erin': 0.03374233128834356,
```

```
'Kevin': 0.018404907975460124,  
'Lawyer': 0.03374233128834356,  
'Dwight and Angela': 0.003067484662576687,  
'Andy': 0.12576687116564417,  
'Phyllis': 0.024539877300613498,  
'Meredith': 0.009202453987730062,  
'Kelly': 0.015337423312883436,  
'Gabe': 0.018404907975460124,  
'Shane': 0.03374233128834356,  
'Darryl': 0.012269938650306749,  
'Reporter': 0.009202453987730062},  
(6, 24): {'Michael': 0.27346938775510204,  
'Todd Packer': 0.004081632653061225,  
'Oscar': 0.00816326530612245,  
'Jim': 0.053061224489795916,  
'Angela': 0.0163265306122449,  
'Phyllis': 0.02040816326530612,  
'Dwight': 0.07755102040816327,  
'Jo': 0.17551020408163265,  
'Kevin': 0.02857142857142857,  
'Andy': 0.06938775510204082,  
'Nick': 0.044897959183673466,  
'Darryl': 0.024489795918367346,  
'Toby': 0.02857142857142857,  
'Pam': 0.06938775510204082,  
'Kelly': 0.02040816326530612,  
'Ryan': 0.00816326530612245,  
'Erin': 0.0163265306122449,  
'Realtor': 0.0163265306122449,  
'Gabe': 0.02040816326530612,  
'Creed': 0.00816326530612245,  
'Stanley': 0.00816326530612245,  
'David Wallace': 0.004081632653061225,  
'Hank': 0.004081632653061225},  
(7, 1): {'Stanley': 0.020833333333333332,  
'Ryan': 0.0125,  
'Kelly': 0.020833333333333332,  
'Creed': 0.016666666666666666,  
'Angela': 0.0125,  
'Andy': 0.06666666666666667,  
'Michael': 0.24166666666666667,  
'All': 0.008333333333333333,  
'Dwight': 0.0875,  
'Phyllis': 0.02916666666666667,  
'Toby': 0.0125,  
'Erin': 0.02916666666666667,  
'Gabe': 0.045833333333333333,  
'Pam': 0.10416666666666667,  
'Kevin': 0.020833333333333332,  
'Jim': 0.09166666666666667,  
'Luke': 0.075,  
'Oscar': 0.033333333333333333,  
'Darryl': 0.020833333333333332,  
'Meredith': 0.0125,  
'Jo': 0.02916666666666667,  
'Both': 0.008333333333333333},  
(7, 2): {'Dwight': 0.1791044776119403,  
'Pam': 0.1455223880597015,  
'Jim': 0.12686567164179105,  
'Mose': 0.007462686567164179,  
'Toby': 0.13059701492537312,  
'Michael': 0.11567164179104478,  
'Phyllis': 0.011194029850746268,  
'Ryan': 0.011194029850746268,
```

```
'Andy': 0.048507462686567165,
'Stanley': 0.011194029850746268,
'Kelly': 0.022388059701492536,
'Creed': 0.0037313432835820895,
'Erin': 0.014925373134328358,
'Window treatment guy': 0.011194029850746268,
'Oscar': 0.026119402985074626,
'Darryl': 0.014925373134328358,
'Angel': 0.0037313432835820895,
'Angela': 0.014925373134328358,
'Gabe': 0.06343283582089553,
'Salesman': 0.03731343283582089},
(7, 3): {'Erin': 0.08296943231441048,
'Jim': 0.08296943231441048,
'Andy': 0.21397379912663755,
'Angela': 0.06986899563318777,
'Michael': 0.18777292576419213,
'Pam': 0.07423580786026202,
'Dwight': 0.07423580786026202,
'Stanley': 0.008733624454148471,
'Phyllis': 0.017467248908296942,
'Usher': 0.008733624454148471,
'All': 0.008733624454148471,
'Darryl': 0.048034934497816595,
'Kelly': 0.008733624454148471,
'Shelby': 0.034934497816593885,
'Meredith': 0.004366812227074236,
'Creed': 0.008733624454148471,
'Sweeney Todd': 0.0611353711790393,
'Oscar': 0.004366812227074236},
(7, 4): {'Dwight': 0.1277258566978193,
'Mexican Man': 0.012461059190031152,
'Son': 0.012461059190031152,
'Nate': 0.021806853582554516,
'Angela': 0.006230529595015576,
'Phyllis': 0.01557632398753894,
'Ryan': 0.003115264797507788,
'Kelly': 0.01557632398753894,
'Andy': 0.12461059190031153,
'Pam': 0.024922118380062305,
'Employees except Dwight': 0.003115264797507788,
'Michel': 0.003115264797507788,
'Erin': 0.012461059190031152,
'Michael': 0.27414330218068533,
'Meredith': 0.021806853582554516,
'Kevin': 0.03115264797507788,
'Jim': 0.012461059190031152,
'Oscar': 0.021806853582554516,
'Donna': 0.021806853582554516,
'Stanley': 0.012461059190031152,
'Holly': 0.04984423676012461,
'Jan': 0.04984423676012461,
'Astrid': 0.009345794392523364,
'Creed': 0.006230529595015576,
'Darryl': 0.024922118380062305,
'Jim and Pam': 0.003115264797507788,
'Old Woman': 0.009345794392523364,
'Helene': 0.012461059190031152,
'Carroll': 0.04361370716510903,
'Gabe': 0.009345794392523364,
'Carrol': 0.003115264797507788},
(7, 5): {'Michael': 0.21794871794871795,
'Oscar': 0.041025641025641026,
'Pam': 0.02564102564102564,
```

'Dwight': 0.14358974358974358,
'Kevin': 0.03076923076923077,
'Meredith': 0.038461538461538464,
'Kelly': 0.007692307692307693,
'Jim': 0.15128205128205127,
'All': 0.010256410256410256,
'Andy': 0.09743589743589744,
'Phyllis': 0.020512820512820513,
'Danny': 0.10256410256410256,
'Angela': 0.005128205128205128,
'Darryl': 0.05897435897435897,
'Receptionist': 0.002564102564102564,
'Steve': 0.01282051282051282,
'Stanley': 0.01282051282051282,
'Erin': 0.005128205128205128,
'Darryl and Andy': 0.002564102564102564,
'Ryan': 0.007692307692307693,
'Creed': 0.005128205128205128},
(7, 6): {'Andy': 0.056338028169014086,
'Jim': 0.09507042253521127,
'Stanley': 0.02464788732394366,
'Kevin': 0.06690140845070422,
'Michael': 0.20774647887323944,
'All': 0.0035211267605633804,
'Pam': 0.08450704225352113,
'Dwight': 0.04929577464788732,
'Oscar': 0.028169014084507043,
'Erin': 0.02464788732394366,
'Gabe': 0.04929577464788732,
'Todd Packer': 0.017605633802816902,
'Danny': 0.09859154929577464,
'Darryl': 0.09154929577464789,
'Toby': 0.014084507042253521,
'Ryan': 0.02112676056338028,
'Kelly': 0.017605633802816902,
'Creed': 0.01056338028169014,
'Phyllis': 0.017605633802816902,
'Angela': 0.017605633802816902,
'Meredith': 0.0035211267605633804},
(7, 7): {'Pam': 0.11538461538461539,
'Kelly': 0.006993006993006993,
'Michael': 0.25874125874125875,
'Jim': 0.13286713286713286,
'Erin': 0.03146853146853147,
'Dwight': 0.055944055944055944,
'Angela': 0.027972027972027972,
'Andy': 0.08741258741258741,
'Ryan': 0.02097902097902098,
'Toby': 0.01048951048951049,
'Church congregation': 0.0034965034965034965,
'Pastor': 0.024475524475524476,
'All': 0.0034965034965034965,
'Female church member': 0.0034965034965034965,
'Male church member': 0.01048951048951049,
'Female church member [to Michael]': 0.0034965034965034965,
'Lady': 0.0034965034965034965,
'Doug [church member]': 0.0034965034965034965,
'Doug': 0.017482517482517484,
'Stanley': 0.01048951048951049,
'Kevin': 0.013986013986013986,
'Girl': 0.03146853146853147,
'Phyllis': 0.017482517482517484,
'Woman': 0.01048951048951049,
'Oscar': 0.006993006993006993,


```
'Darryl': 0.006993006993006993,  
'Mee-Maw': 0.0034965034965034965,  
'Students': 0.0034965034965034965,  
'Guy': 0.027972027972027972,  
'Gabe': 0.006993006993006993,  
'MeeMaw': 0.0034965034965034965,  
'Carla': 0.006993006993006993,  
"Jim's Dad": 0.0034965034965034965,  
'Helene': 0.0034965034965034965,  
'Bus driver': 0.01048951048951049,  
'Michael and Andy': 0.0034965034965034965,  
'Another guy': 0.0034965034965034965,  
'Radio': 0.0034965034965034965},  
(7, 8): {'Erin': 0.1510791366906475,  
'Reporter': 0.007194244604316547,  
'Michael': 0.2014388489208633,  
'Kevin': 0.03237410071942446,  
'Dwight': 0.09352517985611511,  
'Angela': 0.03237410071942446,  
'Gabe': 0.06474820143884892,  
'Jim': 0.06474820143884892,  
'Kelly': 0.046762589928057555,  
'Andy': 0.09712230215827339,  
'Stanley': 0.0035971223021582736,  
'Cece': 0.0035971223021582736,  
'Pam': 0.08273381294964029,  
'Phyllis': 0.04316546762589928,  
'Oscar': 0.025179856115107913,  
'Ryan': 0.01079136690647482,  
'Daryl': 0.02158273381294964,  
'TV': 0.0035971223021582736,  
'Creed': 0.014388489208633094},  
(7, 9): {'Dwight': 0.0781758957654723,  
'Michael': 0.21498371335504887,  
'Jim': 0.0781758957654723,  
'Pam': 0.09120521172638436,  
'Erin': 0.02280130293159609,  
'Andy': 0.03257328990228013,  
'Kevin': 0.029315960912052116,  
'Meridith': 0.006514657980456026,  
'Angela': 0.06514657980456026,  
'Ryan': 0.1758957654723127,  
'Robotic Voice': 0.006514657980456026,  
'Ryan and Michael': 0.003257328990228013,  
'Guy': 0.003257328990228013,  
'Gabe': 0.026058631921824105,  
'Stanley': 0.02280130293159609,  
'Phyllis': 0.003257328990228013,  
'Phyliss': 0.003257328990228013,  
'Oscar': 0.016286644951140065,  
'Kids': 0.003257328990228013,  
'Kid': 0.003257328990228013,  
'Little Girl': 0.006514657980456026,  
'Daryl': 0.03257328990228013,  
'Kelly': 0.016286644951140065,  
'Micheal': 0.003257328990228013,  
'Man': 0.03257328990228013,  
'Creed': 0.009771986970684038,  
'Jo': 0.013029315960912053},  
(7, 10): {'Dwight': 0.15483870967741936,  
'Jim': 0.08709677419354839,  
'Pam': 0.14838709677419354,  
'Hank': 0.00967741935483871,  
'Andy': 0.07419354838709677,
```

'Michael': 0.18064516129032257,
'Erin': 0.03225806451612903,
'Darryl': 0.041935483870967745,
'Stanley': 0.01935483870967742,
'Nate': 0.041935483870967745,
'Angela': 0.00967741935483871,
'Phyllis': 0.00967741935483871,
'Kevin': 0.025806451612903226,
'Oscar': 0.08064516129032258,
'Ryan': 0.02258064516129032,
'Meredith': 0.0064516129032258064,
'Gabe': 0.0032258064516129032,
'Kelly': 0.025806451612903226,
'Creed': 0.0064516129032258064,
'Dwight & Nate': 0.0032258064516129032,
'Passer-by': 0.016129032258064516},
(7, 11): {'Nate': 0.008361204013377926,
'Pam': 0.11538461538461539,
'Michael': 0.21739130434782608,
'Jim': 0.08361204013377926,
'Kevin': 0.02508361204013378,
'Andy': 0.046822742474916385,
'Dwight': 0.06354515050167224,
'Phyllis': 0.021739130434782608,
'Erin': 0.030100334448160536,
'Oscar': 0.020066889632107024,
'All': 0.0016722408026755853,
'Meredith': 0.016722408026755852,
'Angela': 0.043478260869565216,
'Stanley': 0.008361204013377926,
'Kelly': 0.023411371237458192,
'Gabe': 0.010033444816053512,
'Darryl': 0.038461538461538464,
'Toby': 0.04180602006688963,
'Ryan': 0.01839464882943144,
'Creed': 0.006688963210702341,
'Bass Player': 0.0033444816053511705,
'Justine': 0.0033444816053511705,
'Holly': 0.08361204013377926,
'Jada': 0.033444816053511704,
'Robert': 0.008361204013377926,
'AJ': 0.02508361204013378,
'Darrly': 0.0016722408026755853},
(7, 12): {'Man': 0.009404388714733543,
'Dwight': 0.10658307210031348,
'Jim': 0.025078369905956112,
'Member': 0.006269592476489028,
'Michael': 0.23510971786833856,
'Erin': 0.06583072100313479,
'Angela': 0.0219435736677116,
'Pam': 0.09717868338557993,
'Phyllis': 0.02821316614420063,
'Kelly': 0.03134796238244514,
'Holly': 0.05956112852664577,
'Kevin': 0.05956112852664577,
'Video Michael': 0.0219435736677116,
'Andy': 0.06583072100313479,
'Oscar': 0.009404388714733543,
'Darryl': 0.06583072100313479,
'Bookstore employee': 0.006269592476489028,
'Customer': 0.006269592476489028,
'Gabe': 0.006269592476489028,
'Creed': 0.04075235109717868,
'Ryan': 0.018808777429467086,

```
'DJ': 0.009404388714733543,
'Meredith': 0.003134796238244514},
(7, 13): {'David Brent': 0.0035211267605633804,
'Michael': 0.13028169014084506,
'David': 0.04225352112676056,
'Erin': 0.0880281690140845,
'Andy': 0.1795774647887324,
'Jim': 0.08450704225352113,
'Pam': 0.06338028169014084,
'Dwight': 0.06690140845070422,
'Older guy': 0.0035211267605633804,
'Phyllis, Stanley, Dwight': 0.0035211267605633804,
'Phyllis': 0.01056338028169014,
'Younger Guy': 0.01056338028169014,
'Stanley': 0.007042253521126761,
'Holly': 0.04225352112676056,
'Oscar': 0.04929577464788732,
'Kevin': 0.03169014084507042,
'Kelly': 0.04225352112676056,
'Ryan': 0.028169014084507043,
'Creed': 0.007042253521126761,
'Older Woman': 0.007042253521126761,
'Professor Powell': 0.014084507042253521,
'Hank': 0.007042253521126761,
'Gabe': 0.02464788732394366,
'Guy': 0.007042253521126761,
'Darryl': 0.01056338028169014,
'Tom': 0.035211267605633804},
(7, 14): {'Kelly': 0.02903225806451613,
'Erin': 0.04516129032258064,
'Phyllis': 0.03225806451612903,
'Meredith': 0.00967741935483871,
'Andy': 0.04516129032258064,
'Ryan': 0.01935483870967742,
'Pam': 0.11612903225806452,
'Ryan and Kelly': 0.0032258064516129032,
'Kevin': 0.02258064516129032,
'Oscar': 0.03870967741935484,
'Jim': 0.1032258064516129,
'Michael': 0.13548387096774195,
'Holly': 0.0967741935483871,
'Helen': 0.016129032258064516,
'Guy': 0.0032258064516129032,
'Attendant': 0.01935483870967742,
'Dwight': 0.08387096774193549,
'Gabe': 0.08064516129032258,
'Darryl': 0.025806451612903226,
'Darrly': 0.0032258064516129032,
'Office': 0.0032258064516129032,
'Hot Dog Guy': 0.016129032258064516,
'Cell Phone Sales Person': 0.0064516129032258064,
'Dwight and Erin': 0.0032258064516129032,
'Waiter': 0.025806451612903226,
'Micahel': 0.0032258064516129032,
'Stanley': 0.00967741935483871,
'Angela': 0.0032258064516129032},
(7, 15): {'Pam': 0.06818181818181818,
'Darryl': 0.045454545454545456,
'Andy': 0.10511363636363637,
'Phyllis': 0.008522727272727272,
'Holly': 0.10795454545454546,
'Michael': 0.20738636363636365,
'Gabe': 0.05965909090909091,
'Erin': 0.10795454545454546,
```

```
'Oscar': 0.048295454545454544,  
'Jim': 0.06534090909090909,  
'Dwight': 0.06818181818181818,  
'Angela': 0.02556818181818182,  
'Kevin': 0.036931818181818184,  
'Everyone': 0.002840909090909091,  
'Ryan': 0.017045454545454544,  
'Meredith': 0.002840909090909091,  
'Creed': 0.002840909090909091,  
'Stanley': 0.002840909090909091,  
'Boom Box': 0.002840909090909091,  
'Jim and Pam': 0.002840909090909091,  
'Andy and Erin': 0.002840909090909091,  
'Hank': 0.005681818181818182,  
'Kelly': 0.002840909090909091},  
(7, 16): {'Michael': 0.45833333333333333,  
'Erin': 0.013888888888888888,  
'Jim': 0.08333333333333333,  
'Pam': 0.05555555555555555,  
'Creed': 0.013888888888888888,  
'Holly': 0.20833333333333334,  
'Dwight': 0.04166666666666664,  
'Daryl': 0.013888888888888888,  
'Jan': 0.013888888888888888,  
'Karen': 0.013888888888888888,  
'Kelly': 0.013888888888888888,  
'Kevin': 0.027777777777777776,  
'Ryan': 0.013888888888888888,  
'Andy': 0.027777777777777776},  
(7, 17): {'Dwight': 0.13099041533546327,  
'Kevin': 0.04153354632587859,  
'Meredith': 0.009584664536741214,  
'Jim': 0.12140575079872204,  
'Todd': 0.1182108626198083,  
'Michael': 0.18210862619808307,  
'Holly': 0.10223642172523961,  
'Erin': 0.03194888178913738,  
'Gabe': 0.003194888178913738,  
'Pam': 0.11501597444089456,  
'Ryan': 0.012779552715654952,  
'Kelly': 0.009584664536741214,  
'Andy': 0.0926517571884984,  
'Stanley': 0.003194888178913738,  
'Phyllis': 0.003194888178913738,  
'Holy': 0.003194888178913738,  
'Oscar': 0.003194888178913738,  
'Angela': 0.003194888178913738,  
'Daryl': 0.012779552715654952},  
(7, 18): {'Pam': 0.1103448275862069,  
'Oscar': 0.02413793103448276,  
'Dwight': 0.10689655172413794,  
'Jim': 0.08275862068965517,  
'Andy': 0.05862068965517241,  
'Meredith': 0.010344827586206896,  
'Kevin': 0.06206896551724138,  
'Michael': 0.2482758620689655,  
'Holly': 0.16206896551724137,  
'Lady': 0.0034482758620689655,  
'Kelly': 0.010344827586206896,  
'Darryl': 0.034482758620689655,  
"Holly's Mom": 0.013793103448275862,  
"Holly's Dad": 0.017241379310344827,  
'Micahel': 0.0034482758620689655,  
'Ryan': 0.03103448275862069,
```

```
'Phyllis': 0.010344827586206896,  
'Stanley': 0.0034482758620689655,  
'Gabe': 0.0034482758620689655,  
'Angela': 0.0034482758620689655},  
(7, 19): {'Michael': 0.2786885245901639,  
'Waiter': 0.004098360655737705,  
'Deangelo': 0.3319672131147541,  
'Deangelo/Michael': 0.00819672131147541,  
'Oscar': 0.020491803278688523,  
'Kevin': 0.01639344262295082,  
'Dwight': 0.040983606557377046,  
'Kelly': 0.020491803278688523,  
'Darryl': 0.03278688524590164,  
'Angela': 0.01639344262295082,  
'Andy': 0.04918032786885246,  
'Pam': 0.03278688524590164,  
'Jim': 0.040983606557377046,  
'Meredith': 0.004098360655737705,  
'Stanley': 0.012295081967213115,  
'Erin': 0.040983606557377046,  
'Denagelo': 0.004098360655737705,  
'Ryan': 0.00819672131147541,  
'Phyllis': 0.00819672131147541,  
'Darryl's sister': 0.00819672131147541,  
'Gabe': 0.01639344262295082,  
'Micahel': 0.004098360655737705},  
(7, 20): {'Michael': 0.31679389312977096,  
'DeAngelo': 0.20610687022900764,  
'Jim': 0.0916030534351145,  
'Pam': 0.05725190839694656,  
'Stanley': 0.011450381679389313,  
'Meredith': 0.022900763358778626,  
'Erin': 0.04580152671755725,  
'Dwight': 0.04961832061068702,  
'Kevin': 0.022900763358778626,  
'Phyllis': 0.011450381679389313,  
'Ryan': 0.022900763358778626,  
'Andy': 0.015267175572519083,  
'Darryl': 0.011450381679389313,  
'Jo': 0.015267175572519083,  
'Angela': 0.007633587786259542,  
'Audience': 0.007633587786259542,  
'Oscar': 0.022900763358778626,  
'Together': 0.003816793893129771,  
'Manager': 0.011450381679389313,  
'Gabe': 0.007633587786259542,  
'All': 0.015267175572519083,  
'Toby': 0.007633587786259542,  
'Erin and Kelly': 0.003816793893129771,  
'Women': 0.003816793893129771,  
'Creed': 0.003816793893129771,  
'Kelly and Erin': 0.003816793893129771},  
(7, 21): {'Michael': 0.3525835866261398,  
'Dwight': 0.0486322188449848,  
'DeAngelo': 0.07598784194528875,  
'Gabe': 0.030395136778115502,  
'Andy': 0.0729483282674772,  
'Jim': 0.0547112462006079,  
'Phyllis': 0.0547112462006079,  
'Angela': 0.0364741641337386,  
'Pam': 0.060790273556231005,  
'Meredith': 0.0182370820668693,  
'Stanley': 0.02127659574468085,  
'Kevin': 0.03343465045592705,
```

```
'Oscar': 0.0182370820668693,  
'Holly': 0.0182370820668693,  
'Toby': 0.015197568389057751,  
'Kelly': 0.00911854103343465,  
'Ryan': 0.00911854103343465,  
'Erin': 0.0364741641337386,  
'abe': 0.00303951367781155,  
'Creed': 0.0060790273556231,  
'Rory': 0.0060790273556231,  
'Darryl': 0.00911854103343465,  
'Warehouse Guy': 0.00303951367781155,  
'DeAngelo': 0.00303951367781155,  
'Client': 0.00303951367781155},  
(7, 22): {'Deangelo': 0.33962264150943394,  
'Darryl': 0.03018867924528302,  
'Toby': 0.0037735849056603774,  
'Oscar': 0.007547169811320755,  
'Kevin': 0.04905660377358491,  
'Pam': 0.09056603773584905,  
'Jim': 0.1509433962264151,  
'Andy': 0.033962264150943396,  
'Dwight': 0.07547169811320754,  
'Gabe': 0.03018867924528302,  
'Ryan': 0.05660377358490566,  
'Kelly': 0.05660377358490566,  
'Phyllis': 0.01509433962264151,  
'Angela': 0.01509433962264151,  
'Erin': 0.011320754716981131,  
'Jordan': 0.033962264150943396},  
(7, 23): {'Pam': 0.042801556420233464,  
'Dwight': 0.2840466926070039,  
'Phyllis': 0.019455252918287938,  
'Jim': 0.10894941634241245,  
'Dwight [on phone]': 0.0038910505836575876,  
'Mose [on phone]': 0.0038910505836575876,  
'All': 0.007782101167315175,  
'All but Oscar': 0.0038910505836575876,  
'Angela': 0.042801556420233464,  
'Erin': 0.05058365758754864,  
'Kelly': 0.023346303501945526,  
'Andy': 0.10116731517509728,  
'Gabe': 0.07782101167315175,  
'Kevin': 0.07782101167315175,  
'Stanley': 0.007782101167315175,  
'Creed': 0.007782101167315175,  
'Jordan': 0.007782101167315175,  
'Oscar': 0.01556420233463035,  
'Meredith': 0.0038910505836575876,  
'Toby': 0.023346303501945526,  
'Darryl': 0.019455252918287938,  
'Ryan': 0.007782101167315175,  
'Jo': 0.054474708171206226,  
'Darryl and Angela': 0.0038910505836575876},  
(7, 24): {'Creed': 0.03441295546558704,  
'Jim': 0.18218623481781376,  
'Pam': 0.06477732793522267,  
'Kevin': 0.02834008097165992,  
'Fred Henry': 0.0020242914979757085,  
'Fred': 0.018218623481781375,  
'Toby': 0.02631578947368421,  
'Gabe': 0.06072874493927125,  
'Stanley': 0.008097165991902834,  
'Darryl': 0.05465587044534413,  
'Phyllis': 0.04048582995951417,
```

```
'Andy': 0.05263157894736842,  
'Erin': 0.0465587044534413,  
'Dwight': 0.08906882591093117,  
'Warren Buffett': 0.0020242914979757085,  
'Warren': 0.004048582995951417,  
'Angela': 0.022267206477732792,  
'Robert California': 0.0020242914979757085,  
'Robert': 0.024291497975708502,  
'Merv Bronte': 0.0020242914979757085,  
'Merv': 0.020242914979757085,  
'Kelly': 0.03441295546558704,  
'Meredith': 0.012145748987854251,  
'Oscar': 0.044534412955465584,  
'Ryan': 0.022267206477732792,  
'David Brent': 0.0020242914979757085,  
'Nellie Bertram': 0.0020242914979757085,  
'Nellie': 0.018218623481781375,  
'Jo': 0.05668016194331984,  
'Jordan': 0.004048582995951417,  
'All': 0.0020242914979757085,  
'Jada': 0.004048582995951417,  
'Finger Lakes Guy': 0.0020242914979757085,  
'Pam as fourth-biggest client': 0.006072874493927126,  
'Pam as ninth-biggest client': 0.004048582995951417},  
(8, 1): {'Oscar': 0.025547445255474453,  
'Erin': 0.032846715328467155,  
'Andy': 0.1897810218978102,  
'Dwight': 0.1386861313868613,  
'Jim': 0.1386861313868613,  
'Kelly': 0.021897810218978103,  
'Pam': 0.09124087591240876,  
'Angela': 0.025547445255474453,  
'Darryl': 0.01824817518248175,  
'Stanley': 0.029197080291970802,  
'Robert': 0.12043795620437957,  
'Phyllis': 0.040145985401459854,  
'Kevin': 0.0364963503649635,  
'Meredith': 0.021897810218978103,  
'Everyone': 0.0072992700729927005,  
'Toby': 0.014598540145985401,  
'Ryan': 0.01824817518248175,  
'Creed': 0.0036496350364963502,  
'Gabe': 0.010948905109489052,  
'All': 0.0036496350364963502,  
'Darryl & Oscar': 0.0036496350364963502,  
'Waiter': 0.0072992700729927005},  
(8, 2): {'Jim': 0.13125,  
'Kevin': 0.075,  
'Pam': 0.10625,  
'Oscar': 0.021875,  
'Angela': 0.04375,  
'Andy': 0.26875,  
'Dwight': 0.065625,  
'Phyllis': 0.025,  
'Ryan': 0.015625,  
'Stanley': 0.015625,  
'Erin': 0.05625,  
'Darryl': 0.021875,  
'Robert': 0.075,  
'Meredith': 0.015625,  
'Justine': 0.009375,  
'Kelly': 0.015625,  
'Group': 0.00625,  
'Tattoo Artist': 0.025,
```

```
'All': 0.003125,  
'Toby': 0.003125},  
(8, 3): {'Dwight': 0.1167192429022082,  
'Oscar': 0.056782334384858045,  
'Erin': 0.03785488958990536,  
'Jim': 0.1640378548895899,  
'Andy': 0.19873817034700317,  
'Darryl': 0.15457413249211358,  
'Kelly': 0.01892744479495268,  
'Kevin': 0.06624605678233439,  
'Meredith': 0.012618296529968454,  
'Pam': 0.07255520504731862,  
'Phyllis': 0.022082018927444796,  
'Ryan': 0.01892744479495268,  
'Angela': 0.00946372239747634,  
'Female Applicant': 0.006309148264984227,  
'Male Applicant 1': 0.00946372239747634,  
'Male Applicant 2': 0.0031545741324921135,  
'Gideon': 0.006309148264984227,  
'Nate': 0.00946372239747634,  
'Bruce': 0.0031545741324921135,  
'Dwight, Erin, Jim & Kevin': 0.0031545741324921135,  
'Creed': 0.0031545741324921135,  
'Toby': 0.006309148264984227},  
(8, 4): {'Jim': 0.08614232209737828,  
'Andy': 0.24719101123595505,  
'Pam': 0.056179775280898875,  
'Erin': 0.018726591760299626,  
'Meredith': 0.02247191011235955,  
'Dwight': 0.10861423220973783,  
'Ryan': 0.0299625468164794,  
'Oscar': 0.03745318352059925,  
'Kelly': 0.011235955056179775,  
'Phyllis': 0.011235955056179775,  
'Darryl': 0.03745318352059925,  
'Stanley': 0.003745318352059925,  
'Kevin': 0.02247191011235955,  
'Gabe': 0.0149812734082397,  
'Angela': 0.04868913857677903,  
'Robert': 0.06741573033707865,  
'Toby': 0.02247191011235955,  
'Mose': 0.018726591760299626,  
'Walter': 0.07865168539325842,  
'Ellen': 0.011235955056179775,  
'Walter Jr': 0.02247191011235955,  
'Waiter': 0.003745318352059925,  
'Andy & Walter': 0.011235955056179775,  
'Walter & Walter Jr': 0.003745318352059925,  
'Erin's Cell Phone': 0.003745318352059925},  
(8, 5): {'Andy': 0.11683848797250859,  
'Stanley': 0.013745704467353952,  
'Kevin': 0.030927835051546393,  
'Phyllis': 0.024054982817869417,  
'Kelly': 0.041237113402061855,  
'Meredith': 0.030927835051546393,  
'Erin': 0.12371134020618557,  
'Darryl': 0.030927835051546393,  
'Jim': 0.09965635738831616,  
'Ryan': 0.010309278350515464,  
'Dwight': 0.07216494845360824,  
'Toby': 0.024054982817869417,  
'Pam': 0.09278350515463918,  
'Oscar': 0.03436426116838488,  
'Robert': 0.10996563573883161,
```



```
'Bert': 0.07903780068728522,  
'Gabe': 0.030927835051546393,  
'Gabe/Kelly/Toby': 0.003436426116838488,  
'Angela': 0.01718213058419244,  
'Creed': 0.013745704467353952},  
(8, 6): {'Andy': 0.16666666666666666,  
'Erin': 0.024691358024691357,  
'Jim': 0.13580246913580246,  
'Andy/Pam': 0.0030864197530864196,  
'Pam': 0.06481481481481481,  
'Stanley': 0.027777777777777776,  
'Andy/Stanley': 0.0030864197530864196,  
'Robert': 0.10802469135802469,  
'Dwight': 0.1574074074074074,  
'Darryl': 0.04938271604938271,  
'Val': 0.033950617283950615,  
'Gabe': 0.07407407407407407,  
'Toby': 0.024691358024691357,  
'Kevin': 0.030864197530864196,  
'Kelly': 0.015432098765432098,  
'Ryan': 0.009259259259259259,  
'Oscar': 0.033950617283950615,  
'Warehouse Crew': 0.009259259259259259,  
'Phyllis': 0.006172839506172839,  
'Angela': 0.021604938271604937},  
(8, 7): {'Andy': 0.13395638629283488,  
'Erin': 0.040498442367601244,  
'Client': 0.009345794392523364,  
'Dwight': 0.17133956386292834,  
'Darryl': 0.07165109034267912,  
'Pam': 0.20249221183800623,  
'Cathy': 0.03115264797507788,  
'Ryan': 0.018691588785046728,  
'Jim': 0.12461059190031153,  
'Gabe': 0.006230529595015576,  
'Toby': 0.012461059190031152,  
'Oscar': 0.012461059190031152,  
'Offscreen': 0.003115264797507788,  
'Phyllis': 0.006230529595015576,  
'Val': 0.012461059190031152,  
'Kevin': 0.04672897196261682,  
'Robert': 0.03115264797507788,  
'Kelly': 0.018691588785046728,  
'Curtis': 0.009345794392523364,  
'Drummer': 0.003115264797507788,  
'Pam and Kelly': 0.003115264797507788,  
'Creed': 0.006230529595015576,  
'Old Man': 0.012461059190031152,  
'Andy and Darryl': 0.009345794392523364,  
'Darryl and Kevin': 0.003115264797507788},  
(8, 8): {'Gabe': 0.03546099290780142,  
'Kelly': 0.01773049645390071,  
'Andy': 0.20567375886524822,  
'Pam': 0.06382978723404255,  
'Jim': 0.08865248226950355,  
'Phyllis': 0.03900709219858156,  
'Ryan': 0.03900709219858156,  
'Oscar': 0.07092198581560284,  
'Meredith': 0.0035460992907801418,  
'Erin': 0.06028368794326241,  
'Everyone': 0.014184397163120567,  
'Angela': 0.0035460992907801418,  
'Dwight': 0.10638297872340426,  
'Kevin': 0.06382978723404255,
```

```
'Darryl': 0.04609929078014184,  
'Robert': 0.0851063829787234,  
'Stanley': 0.014184397163120567,  
'Park Ranger': 0.010638297872340425,  
'Chelsea': 0.0035460992907801418,  
'Man': 0.0035460992907801418,  
'Audience': 0.0035460992907801418,  
'Archivist': 0.0070921985815602835,  
'Narrator': 0.0070921985815602835,  
'Soldier': 0.0035460992907801418,  
'Amanda': 0.0035460992907801418},  
(8, 9): {'Dwight': 0.17391304347826086,  
'Creed': 0.006688963210702341,  
'Oscar': 0.04013377926421405,  
'Jim': 0.09698996655518395,  
'Darryl': 0.0802675585284281,  
'Andy': 0.19732441471571907,  
'Robert': 0.13377926421404682,  
'Ryan': 0.010033444816053512,  
'Susan': 0.1605351170568562,  
'Erin': 0.026755852842809364,  
'Phyllis': 0.010033444816053512,  
'Angela': 0.006688963210702341,  
'Kelly': 0.0033444816053511705,  
'Toby': 0.010033444816053512,  
'Andy/Oscar': 0.0033444816053511705,  
'Kevin': 0.006688963210702341,  
'Gabe': 0.013377926421404682,  
'Meredith': 0.0033444816053511705,  
'Kathy': 0.0033444816053511705,  
'Stanley': 0.0033444816053511705,  
'Bob's Secretary': 0.006688963210702341,  
'Mrs. California': 0.0033444816053511705},  
(8, 10): {'Andy': 0.25,  
'Stanley': 0.014204545454545454,  
'Jim': 0.125,  
'Meredith': 0.05113636363636364,  
'Dwight': 0.07954545454545454,  
'Creed': 0.005681818181818182,  
'Erin': 0.10795454545454546,  
'Kelly': 0.028409090909090908,  
'Robert': 0.07386363636363637,  
'Kevin': 0.028409090909090908,  
'Oscar': 0.02556818181818182,  
'Jessica': 0.0625,  
'Darryl': 0.028409090909090908,  
'Val': 0.02556818181818182,  
'Nate': 0.014204545454545454,  
'Ryan': 0.028409090909090908,  
'Phyllis': 0.019886363636363636,  
'Toby': 0.017045454545454544,  
'Angela': 0.005681818181818182,  
'Kathy': 0.008522727272727272},  
(8, 11): {'Kevin': 0.07063197026022305,  
'All': 0.007434944237918215,  
'Dwight': 0.12639405204460966,  
'Oscar': 0.07063197026022305,  
'Jim': 0.07063197026022305,  
'Andy': 0.16356877323420074,  
'Erin': 0.022304832713754646,  
'Darryl': 0.03717472118959108,  
'Angela': 0.007434944237918215,  
'Receptionist': 0.01486988847583643,  
'Gabe': 0.07806691449814127,
```

'Robert': 0.05947955390334572,
'Meredith': 0.026022304832713755,
'Phyllis': 0.011152416356877323,
'Stanley': 0.01858736059479554,
'Host': 0.10408921933085502,
'Creed': 0.0037174721189591076,
'Cathy': 0.0037174721189591076,
'Ryan': 0.022304832713754646,
'Kelly': 0.026022304832713755,
'Queerenstein Bears': 0.0037174721189591076,
"Oscar's friend": 0.011152416356877323,
'Stu': 0.0037174721189591076,
'Stonewall Host': 0.011152416356877323,
'Meredith & Kelly': 0.0037174721189591076,
'Announcer': 0.01486988847583643,
'Einsteins': 0.0037174721189591076,
'Group': 0.0037174721189591076},
(8, 12): {'Dwight': 0.14873417721518986,
'Jim': 0.06962025316455696,
'Stanley': 0.022151898734177215,
'Erin': 0.18354430379746836,
'Andy': 0.13924050632911392,
'Oscar': 0.0379746835443038,
'Robert': 0.0759493670886076,
'Kevin': 0.03481012658227848,
'Meredith': 0.028481012658227847,
'Angela': 0.015822784810126583,
'Cathy': 0.00949367088607595,
'Gabe': 0.028481012658227847,
'Ryan': 0.03164556962025317,
'Jessica': 0.05379746835443038,
'Darryl': 0.03164556962025317,
'Val': 0.022151898734177215,
'Toby': 0.02531645569620253,
'Kelly': 0.0189873417721519,
'All': 0.006329113924050633,
'Both': 0.0031645569620253164,
'Phyllis': 0.00949367088607595,
'Kathy': 0.0031645569620253164},
(8, 13): {'Andy': 0.12634408602150538,
'Val': 0.008064516129032258,
'Erin': 0.03763440860215054,
'Jim': 0.19623655913978494,
'Phyllis': 0.03225806451612903,
'Dwight': 0.15591397849462366,
'Kevin': 0.03225806451612903,
'Darryl': 0.03494623655913978,
'Ryan': 0.005376344086021506,
'Oscar': 0.06451612903225806,
'Gabe': 0.013440860215053764,
'Meredith': 0.005376344086021506,
'Stanley': 0.01881720430107527,
'Toby': 0.013440860215053764,
'Angela': 0.08333333333333333,
'Senator Lipton': 0.024193548387096774,
'Ernesto': 0.010752688172043012,
'Nate': 0.008064516129032258,
'Creed': 0.013440860215053764,
'Pam': 0.07526881720430108,
'All': 0.002688172043010753,
'Cece': 0.01881720430107527,
'Kelly': 0.005376344086021506,
'Nurse': 0.005376344086021506,
'Officer Foley': 0.005376344086021506,

```
'Andy, Darryl & Officer Foley': 0.002688172043010753},
(8, 14): {'Jim': 0.10344827586206896,
'Pam': 0.1,
'All': 0.0034482758620689655,
'Andy': 0.15517241379310345,
'Phyllis': 0.006896551724137931,
'Stanley': 0.02413793103448276,
'Angela': 0.027586206896551724,
'Dwight': 0.23103448275862068,
'Kelly': 0.027586206896551724,
'Oscar': 0.013793103448275862,
'Group': 0.006896551724137931,
'Kevin': 0.017241379310344827,
'Erin': 0.05172413793103448,
'Darryl': 0.07931034482758621,
'Val': 0.03103448275862069,
'Nate': 0.041379310344827586,
'Kathy': 0.006896551724137931,
'Bob': 0.013793103448275862,
'Meredith': 0.006896551724137931,
'Ryan': 0.041379310344827586,
'Creed': 0.0034482758620689655,
'Toby': 0.006896551724137931},
(8, 15): {'Dwight': 0.2571428571428571,
'Erin': 0.08571428571428572,
'Stanley': 0.053061224489795916,
'Ryan': 0.036734693877551024,
'Jim': 0.1306122448979592,
'Cathy': 0.0163265306122449,
'Saleswoman': 0.004081632653061225,
'Andy': 0.08979591836734693,
'Creed': 0.00816326530612245,
'Darryl': 0.0163265306122449,
'Meredith': 0.00816326530612245,
'Oscar': 0.004081632653061225,
'Pam': 0.04081632653061224,
'Everyone': 0.012244897959183673,
'Kelly': 0.012244897959183673,
'Packer': 0.06938775510204082,
'Nellie': 0.11020408163265306,
'Emergency Operator': 0.004081632653061225,
'Paramedic': 0.00816326530612245,
'Kevin': 0.00816326530612245,
'Donna Muraski': 0.00816326530612245,
'Wally Amos': 0.0163265306122449},
(8, 16): {'Pam': 0.04424778761061947,
'Angela': 0.032448377581120944,
'Oscar': 0.029498525073746312,
'Andy': 0.058997050147492625,
'Angela/Pam': 0.0029498525073746312,
'Nellie': 0.07079646017699115,
'Packer': 0.032448377581120944,
'Dwight': 0.17699115044247787,
'Jim': 0.16224188790560473,
'Cathy': 0.07964601769911504,
'Gabe': 0.017699115044247787,
'Stanley': 0.017699115044247787,
'Ryan': 0.058997050147492625,
'Erin': 0.05604719764011799,
'Waitress': 0.0029498525073746312,
'Kevin': 0.011799410029498525,
'Phyllis': 0.011799410029498525,
'Kelly': 0.02359882005899705,
'Darryl': 0.04129793510324484,
```

```
'Val': 0.02654867256637168,  
'Brandon': 0.035398230088495575,  
'Everyone': 0.0058997050147492625},  
(8, 17): {'Dwight': 0.20463320463320464,  
'Ryan': 0.06563706563706563,  
'Erin': 0.03861003861003861,  
'Nellie': 0.07335907335907337,  
'Jim': 0.10810810810810811,  
'Todd Packer': 0.015444015444015444,  
'Cathy': 0.015444015444015444,  
'Andy': 0.10810810810810811,  
'Kevin': 0.03088803088803089,  
'Kelly': 0.03474903474903475,  
'Phyllis': 0.007722007722007722,  
'Darryl': 0.015444015444015444,  
'Meredith': 0.011583011583011582,  
'Angela': 0.03474903474903475,  
'Pam': 0.03861003861003861,  
'Oscar': 0.023166023166023165,  
'Man': 0.003861003861003861,  
'Blogger': 0.015444015444015444,  
'Toby': 0.0694980694980695,  
'Blogger 2': 0.003861003861003861,  
'Creed': 0.003861003861003861,  
'Everyone': 0.003861003861003861,  
'Lady Blogger': 0.003861003861003861,  
'Patty': 0.003861003861003861,  
'Lady': 0.019305019305019305,  
'Girl': 0.015444015444015444,  
'Stanley': 0.003861003861003861,  
'Old Lady': 0.015444015444015444,  
'Crowd': 0.007722007722007722,  
'Others': 0.003861003861003861},  
(8, 18): {'Andy': 0.07575757575757576,  
'Everyone': 0.003787878787878788,  
'Angela': 0.011363636363636364,  
'Phyllis': 0.022727272727272728,  
'Oscar': 0.015151515151515152,  
'Creed': 0.007575757575757576,  
'Pam': 0.03787878787878788,  
'Dwight': 0.17045454545454544,  
'Nellie': 0.04545454545454546,  
'Robert California': 0.05303030303030303,  
'Jim': 0.17045454545454544,  
'Darryl': 0.09848484848484848,  
'Toby': 0.06060606060606061,  
'Erin': 0.056818181818181816,  
'Elderly Woman': 0.003787878787878788,  
'Irene': 0.022727272727272728,  
'Kevin': 0.07196969696969698,  
'Gabe': 0.003787878787878788,  
'Todd Packer': 0.03409090909090909,  
'Stanley': 0.007575757575757576,  
'Kelly': 0.011363636363636364,  
'Meredith': 0.003787878787878788,  
'Cathy': 0.003787878787878788,  
'Ryan': 0.007575757575757576},  
(8, 19): {'Pam': 0.06513409961685823,  
'Kevin': 0.03065134099616858,  
'Jim': 0.14559386973180077,  
'Oscar': 0.0038314176245210726,  
'Ryan': 0.0038314176245210726,  
'Dwight': 0.08045977011494253,  
'Meredith': 0.007662835249042145,
```

```
'Darryl': 0.02681992337164751,  
'All': 0.007662835249042145,  
'Phyllis': 0.01532567049808429,  
'Nellie': 0.16091954022988506,  
'Toby': 0.011494252873563218,  
'Erin': 0.12260536398467432,  
'Alonzo': 0.0038314176245210726,  
'Robert': 0.09195402298850575,  
'Andy': 0.12643678160919541,  
'Irene': 0.06130268199233716,  
'Glenn': 0.01532567049808429,  
'Erin and Irene': 0.0038314176245210726,  
'Angela': 0.0038314176245210726,  
'Kelly': 0.0038314176245210726,  
'Creed': 0.0038314176245210726,  
'Stanley': 0.0038314176245210726},  
(8, 20): {'Pam': 0.10423452768729642,  
'Jim': 0.1270358306188925,  
'Phyllis': 0.029315960912052116,  
'Oscar': 0.035830618892508145,  
'Angela': 0.026058631921824105,  
'Dwight': 0.07166123778501629,  
'Gabe': 0.006514657980456026,  
'Robert': 0.06188925081433225,  
'Nellie': 0.07166123778501629,  
'Kevin & Meredith': 0.003257328990228013,  
'Kevin': 0.009771986970684038,  
'Stanley': 0.003257328990228013,  
'Andy': 0.1563517915309446,  
'Erin': 0.08143322475570032,  
'Lauren': 0.035830618892508145,  
'Jessica': 0.04560260586319218,  
'Party guests': 0.003257328990228013,  
'Megan': 0.02280130293159609,  
'Darryl': 0.003257328990228013,  
'Ryan': 0.009771986970684038,  
'All': 0.009771986970684038,  
'Creed': 0.009771986970684038,  
'Kenny': 0.016286644951140065,  
'Magician': 0.03257328990228013,  
'Woman': 0.003257328990228013,  
'Various': 0.006514657980456026,  
'Hank': 0.013029315960912053},  
(8, 21): {'Phyllis': 0.03424657534246575,  
'Jim': 0.06506849315068493,  
'Darryl': 0.017123287671232876,  
'Oscar': 0.023972602739726026,  
'Meredith': 0.003424657534246575,  
'Pam': 0.09931506849315068,  
'Andy': 0.1815068493150685,  
'Andy & Erin': 0.003424657534246575,  
'Erin': 0.0821917808219178,  
'Kevin': 0.030821917808219176,  
'Dwight': 0.0547945205479452,  
'Nellie': 0.1232876712328767,  
'Ravi': 0.003424657534246575,  
'Kelly': 0.04452054794520548,  
'Ryan': 0.10273972602739725,  
'Robert': 0.06164383561643835,  
'Angela': 0.023972602739726026,  
'Robert & Creed': 0.003424657534246575,  
'Creed': 0.00684931506849315,  
'All': 0.003424657534246575,  
'Gabe': 0.0136986301369863,
```

```
'Stanley': 0.003424657534246575,  
'Toby': 0.003424657534246575,  
'Nate': 0.003424657534246575,  
'Wrangler': 0.00684931506849315},  
(8, 22): {'Ryan': 0.07112970711297072,  
'Pam': 0.09205020920502092,  
'Jim': 0.100418410041841,  
'Nellie': 0.07112970711297072,  
'Dwight': 0.06276150627615062,  
'Oscar': 0.06694560669456066,  
'Darryl': 0.058577405857740586,  
'Robert': 0.05439330543933055,  
'Angela': 0.016736401673640166,  
'Erin': 0.029288702928870293,  
'Phyllis': 0.0041841004184100415,  
'Andy': 0.17154811715481172,  
'Kevin': 0.07531380753138076,  
'Creed': 0.0041841004184100415,  
'Senator': 0.029288702928870293,  
'Meredith': 0.008368200836820083,  
'Stanley': 0.0041841004184100415,  
'Waiter': 0.008368200836820083,  
'David': 0.02092050209205021,  
'Speaker': 0.02510460251046025,  
'Vet': 0.02510460251046025},  
(8, 23): {'Gabe': 0.04513888888888889,  
'Dwight': 0.19444444444444445,  
'Jim': 0.16666666666666666,  
'All': 0.003472222222222222,  
'Robert': 0.11458333333333333,  
'Andy': 0.09722222222222222,  
'Erin': 0.027777777777777776,  
'Stanley': 0.003472222222222222,  
'Phyllis': 0.003472222222222222,  
'Oscar': 0.003472222222222222,  
'Kevin': 0.003472222222222222,  
'Nellie': 0.052083333333333336,  
'Pam': 0.07986111111111111,  
'Harry': 0.08680555555555555,  
'Toby': 0.024305555555555556,  
'Creed': 0.003472222222222222,  
'Receptionist': 0.013888888888888888,  
'Mr. Ramish': 0.03819444444444445,  
'Angela': 0.010416666666666666,  
'Phone': 0.013888888888888888,  
'David': 0.013888888888888888},  
(8, 24): {'Oscar': 0.03728813559322034,  
'Phyllis': 0.01694915254237288,  
'Dwight': 0.09152542372881356,  
'Kelly': 0.013559322033898305,  
'Pam': 0.07457627118644068,  
'Robert': 0.05084745762711865,  
'Kevin': 0.010169491525423728,  
'Sasha': 0.003389830508474576,  
'Jake': 0.003389830508474576,  
'Meredith': 0.006779661016949152,  
'Angela': 0.06779661016949153,  
'Jim': 0.10508474576271186,  
'Darryl': 0.05084745762711865,  
'Hide': 0.006779661016949152,  
'Calvin': 0.010169491525423728,  
'Andy': 0.16610169491525423,  
'Gabe': 0.006779661016949152,  
'Nellie': 0.06440677966101695,
```

```
'Creed': 0.003389830508474576,
'Photographer': 0.006779661016949152,
'Senator Lipton': 0.04745762711864407,
'Erin': 0.030508474576271188,
'Brandon': 0.020338983050847456,
'Val': 0.013559322033898305,
'Toby': 0.01694915254237288,
'Ravi': 0.003389830508474576,
'Others': 0.003389830508474576,
'David': 0.0576271186440678,
'Stanley': 0.003389830508474576,
'Mose': 0.006779661016949152},
(9, 1): {'Erin': 0.017777777777777778,
'Dwight': 0.18666666666666668,
'Doctor': 0.0044444444444444444,
'Angela': 0.07111111111111111,
'Kevin': 0.03111111111111111,
'Oscar': 0.04,
'Pam': 0.08444444444444445,
'Jim': 0.09333333333333334,
'Toby': 0.04888888888888889,
'Kelly': 0.00888888888888889,
'Ryan': 0.0044444444444444444,
'Off-camera': 0.00888888888888889,
'Clark': 0.09777777777777778,
'Stanley': 0.01333333333333334,
'Phyllis': 0.0044444444444444444,
'Nellie': 0.04444444444444446,
'Meredith': 0.00888888888888889,
'Pete': 0.05777777777777775,
'Andy': 0.14666666666666667,
'Darryl': 0.01333333333333334,
'David': 0.0044444444444444444,
'Rafe': 0.0044444444444444444,
'Creed': 0.0044444444444444444},
(9, 2): {'Pam': 0.11486486486486487,
'Kevin': 0.033783783783783786,
'Erin': 0.10472972972972973,
'Andy': 0.11148648648648649,
'Creed': 0.013513513513513514,
'Jim': 0.13175675675675674,
'Pete': 0.05405405405405406,
'Clark': 0.07432432432432433,
'Nellie': 0.10472972972972973,
'Roy': 0.037162162162162164,
'Darryl': 0.037162162162162164,
'Server': 0.006756756756756757,
'Stanley': 0.0033783783783783786,
'Angela': 0.02364864864864865,
'Toby': 0.016891891891891893,
'Dwight': 0.10472972972972973,
'Kenny': 0.0033783783783783786,
'Oscar': 0.016891891891891893,
'Phyllis': 0.0033783783783783786,
'Meredith': 0.0033783783783783786},
(9, 3): {'Fake Jim': 0.024691358024691357,
'Dwight': 0.09876543209876543,
'Voicemail': 0.00823045267489712,
'Pam': 0.13991769547325103,
'Erin': 0.08641975308641975,
'Darryl': 0.12757201646090535,
'Nellie': 0.13991769547325103,
'Andy': 0.18106995884773663,
'Nellie and Pam': 0.00411522633744856,
```


'Jim': 0.07818930041152264,
'Pete': 0.0205761316872428,
'Clark': 0.01646090534979424,
'Oscar': 0.02880658436213992,
'Phyllis': 0.012345679012345678,
'Stanley': 0.00823045267489712,
'Angela': 0.00823045267489712,
'Kevin': 0.012345679012345678,
'Meredith': 0.00411522633744856},
(9, 4): {'Andy': 0.12658227848101267,
'Group: Dunder Mifflin!\nAndy: Andy Bernard presents: Summer Softball Epic
Fails! [Kevin swings bat on screen, fart noise follows] Fail. [repeats] Fai
l': 0.0031645569620253164,
'[repeats]\nAndy: Fail': 0.0031645569620253164,
'Dwight': 0.12658227848101267,
'Jim': 0.189873417721519,
'Darryl': 0.03481012658227848,
"[Clark and Pete are shown on screen]\nVideo Andy: Hey, I'm Pete, puberty
is such a drag, man. And I'm Clark! I like to eat toilet paper. [Clark and
Pete wave at camera] We fail! [Video shows memorial of Jerry": 0.0031645569
620253164,
'Oscar': 0.04113924050632911,
'Group': 0.060126582278481014,
'Phyllis': 0.015822784810126583,
'Stanley': 0.03164556962025317,
'Toby': 0.006329113924050633,
'Pam': 0.09177215189873418,
'Nellie': 0.08544303797468354,
'Meredith': 0.022151898734177215,
'Clark': 0.0379746835443038,
'Creed': 0.00949367088607595,
'Angela': 0.015822784810126583,
'Pete': 0.006329113924050633,
'Erin': 0.03481012658227848,
'Kevin': 0.05063291139240506,
'Phyllis, Kevin & Stanley': 0.0031645569620253164},
(9, 5): {'Dwight': 0.13356164383561644,
'Erin': 0.0821917808219178,
'Jim': 0.11986301369863013,
'Pam': 0.1095890410958904,
'Andy': 0.17123287671232876,
'Angela': 0.02054794520547945,
'HCT': 0.04794520547945205,
'Darryl': 0.02054794520547945,
'Stanley': 0.00684931506849315,
'Clark': 0.017123287671232876,
'Meredith': 0.017123287671232876,
'Nellie': 0.07191780821917808,
'HCT Member #1': 0.003424657534246575,
'HCT Member #2': 0.00684931506849315,
'Pete': 0.00684931506849315,
'Creed': 0.010273972602739725,
'Broccoli Rob': 0.03767123287671233,
'Businessman #1': 0.00684931506849315,
'Businessman #2': 0.010273972602739725,
'Businessman #3': 0.010273972602739725,
'HCT Member #3': 0.03424657534246575,
'Oscar': 0.010273972602739725,
'Senator Lipton': 0.017123287671232876,
'Toby': 0.017123287671232876,
'All': 0.003424657534246575,
'Kevin': 0.00684931506849315},
(9, 6): {'Oscar': 0.09540636042402827,
'Andy': 0.19081272084805653,

```
'White': 0.0035335689045936395,
'Pam': 0.038869257950530034,
'Jim': 0.03180212014134275,
'Kevin': 0.08833922261484099,
'Creed': 0.0035335689045936395,
'Dwight': 0.12014134275618374,
'Meredith': 0.01060070671378092,
'Darryl': 0.014134275618374558,
'Angela': 0.04240282685512368,
'Erin': 0.1413427561837456,
'Nellie': 0.05653710247349823,
'Pete': 0.0353356890459364,
'Toby': 0.03180212014134275,
'Boat Guy': 0.04240282685512368,
'Walt Jr.': 0.014134275618374558,
'David Wallace': 0.024734982332155476,
'All': 0.0035335689045936395,
'Senator Liptop': 0.01060070671378092},
(9, 7): {'Andy': 0.030612244897959183,
'Everyone': 0.006802721088435374,
'Pam': 0.15306122448979592,
'Phyllis': 0.047619047619047616,
'Erin': 0.061224489795918366,
'Darryl': 0.01020408163265306,
'Dwight': 0.18027210884353742,
'David': 0.02040816326530612,
'Jim': 0.07482993197278912,
'Nellie': 0.02040816326530612,
'Meredith': 0.013605442176870748,
'Creed': 0.003401360544217687,
'Pete': 0.030612244897959183,
'Guys in breakroom': 0.003401360544217687,
'Kevin': 0.01020408163265306,
'Clark': 0.013605442176870748,
'Toby': 0.017006802721088437,
'Angela': 0.07142857142857142,
'Oscar': 0.07142857142857142,
'Business partner': 0.034013605442176874,
'Hank': 0.01020408163265306,
'Secretary': 0.006802721088435374,
'Jan': 0.08503401360544217,
'Molly': 0.01020408163265306,
'Colin': 0.013605442176870748},
(9, 8): {'Oscar': 0.06832298136645963,
'Angela': 0.16149068322981366,
'Dwight': 0.17701863354037267,
'Pam': 0.052795031055900624,
'Meredith': 0.024844720496894408,
'Jim': 0.09006211180124224,
'Pete': 0.07142857142857142,
'David': 0.009316770186335404,
'Stanley': 0.043478260869565216,
'Phyllis': 0.037267080745341616,
'Kevin': 0.049689440993788817,
'Darryl': 0.018633540372670808,
'Trevor': 0.06832298136645963,
'Hide': 0.012422360248447204,
'Erin': 0.018633540372670808,
'Everyone': 0.027950310559006212,
'Creed': 0.009316770186335404,
'Waiter': 0.006211180124223602,
'Nellie': 0.027950310559006212,
'Toby': 0.024844720496894408},
(9, 9): {'Jim': 0.20209059233449478,
```

```
'Pam': 0.11149825783972125,  
'Dwight': 0.20557491289198607,  
'Erin': 0.08362369337979095,  
'Angela': 0.03832752613240418,  
'Nellie': 0.03832752613240418,  
'Kevin': 0.04529616724738676,  
'Oscar': 0.024390243902439025,  
'Phyllis': 0.03484320557491289,  
'Meredith': 0.017421602787456445,  
'Stanley': 0.017421602787456445,  
'Creed': 0.006968641114982578,  
'Pete': 0.07665505226480836,  
'Darryl': 0.059233449477351915,  
'Toby': 0.03832752613240418},  
(9, 10): {'Kevin': 0.05533596837944664,  
'Jim': 0.11067193675889328,  
'Darryl': 0.05928853754940711,  
'Erin': 0.10276679841897234,  
'Pam': 0.17391304347826086,  
'Worker': 0.003952569169960474,  
'Val': 0.05138339920948617,  
'Meredith': 0.08695652173913043,  
'Angela': 0.06324110671936758,  
'Dwight': 0.07114624505928854,  
'Oscar': 0.039525691699604744,  
'Phyllis': 0.03162055335968379,  
'Nellie': 0.03557312252964427,  
'Stanley': 0.015810276679841896,  
'Limo Driver': 0.007905138339920948,  
'Creed': 0.015810276679841896,  
'Julius Irving': 0.003952569169960474,  
'Julius': 0.03162055335968379,  
'Pete': 0.02766798418972332,  
'Helene': 0.007905138339920948,  
'Both': 0.003952569169960474},  
(9, 11): {'New Instant Message': 0.0037313432835820895,  
'Dwight': 0.15298507462686567,  
'Jim': 0.06716417910447761,  
'Phyllis': 0.022388059701492536,  
'Nellie': 0.033582089552238806,  
'Darryl': 0.0708955223880597,  
'Pam': 0.08582089552238806,  
'Erin': 0.041044776119402986,  
'Clark': 0.13059701492537312,  
'Meredith': 0.022388059701492536,  
'Oscar': 0.0708955223880597,  
'Kevin': 0.0708955223880597,  
'Pete': 0.007462686567164179,  
'Suit Store Father': 0.041044776119402986,  
'Angela': 0.048507462686567165,  
'Everyone': 0.0037313432835820895,  
'Creed': 0.011194029850746268,  
'Athlead Employee': 0.033582089552238806,  
'Dennis': 0.011194029850746268,  
'Wade': 0.0037313432835820895,  
'Suit Store Son': 0.03731343283582089,  
'Female Athlead Employee': 0.007462686567164179,  
'3rd Athlead Employee': 0.0037313432835820895,  
'4th Athlead Employee': 0.0037313432835820895,  
'Stanley': 0.014925373134328358},  
(9, 12): {'Dwight': 0.15547703180212014,  
'Pam': 0.1696113074204947,  
'Jim': 0.13074204946996468,  
'Kevin': 0.0353356890459364,
```

'Angela': 0.02120141342756184,
'Oscar': 0.028268551236749116,
'Pete': 0.04240282685512368,
'All': 0.014134275618374558,
'Nellie': 0.08480565371024736,
'Erin': 0.0636042402826855,
'Co-worker': 0.01060070671378092,
'Co-worker #2': 0.0035335689045936395,
'Darryl': 0.08480565371024736,
'Cece': 0.014134275618374558,
'Phyllis': 0.01060070671378092,
'Clark': 0.0035335689045936395,
'Mr. Romanko': 0.01060070671378092,
'Stanley': 0.0035335689045936395,
'Creed': 0.007067137809187279,
'Dance Teacher': 0.0035335689045936395,
'Ballerinas': 0.007067137809187279,
'Parent in Audience': 0.0035335689045936395,
'Audience': 0.0035335689045936395,
'Parent in audience #2': 0.0035335689045936395,
'Parent in audience #1': 0.0035335689045936395,
'Meredith': 0.007067137809187279,
'Investor': 0.0035335689045936395,
'Lonnie': 0.007067137809187279,
'Toby': 0.024734982332155476,
'Fast Food Worker': 0.0035335689045936395,
'Drive Thru Customer': 0.0035335689045936395,
'Brian': 0.0176678445229682,
'Cameraman': 0.0035335689045936395,
'Guy': 0.01060070671378092},
(9, 13): {'Pam': 0.08602150537634409,
'Brian': 0.025089605734767026,
'Erin': 0.007168458781362007,
'Meredith': 0.017921146953405017,
'Clark': 0.11827956989247312,
'Dwight': 0.3118279569892473,
'Jim': 0.16129032258064516,
'Rolf': 0.043010752688172046,
'Trevor': 0.03225806451612903,
'Stanley': 0.007168458781362007,
'Oscar': 0.007168458781362007,
'Darryl': 0.007168458781362007,
'Kevin': 0.0035842293906810036,
'Mose': 0.014336917562724014,
'Gabor': 0.010752688172043012,
'Nate': 0.007168458781362007,
'Zeke': 0.014336917562724014,
'Melvina': 0.017921146953405017,
'Angela': 0.0035842293906810036,
'Nellie': 0.010752688172043012,
'David Wallace': 0.03225806451612903,
'Hide': 0.014336917562724014,
'Troy': 0.0035842293906810036,
'Wolf': 0.035842293906810034,
'Sensei Ira': 0.0035842293906810036,
'Pam & Dwight': 0.0035842293906810036},
(9, 14): {'Nellie': 0.03461538461538462,
'Erin': 0.038461538461538464,
'Darryl': 0.1346153846153846,
'Pam': 0.21923076923076923,
'Angela': 0.057692307692307696,
'Kevin': 0.023076923076923078,
'Oscar': 0.046153846153846156,
'Jim': 0.11538461538461539,

```
'Dwight': 0.1423076923076923,  
'Meredith': 0.0038461538461538464,  
'Creed': 0.0038461538461538464,  
'Phyllis': 0.0038461538461538464,  
'Frank': 0.03076923076923077,  
'Glenn': 0.0038461538461538464,  
'Val': 0.0038461538461538464,  
'Nate': 0.015384615384615385,  
'Party Announcer': 0.0038461538461538464,  
'Senator': 0.03076923076923077,  
'Athlead Employee': 0.0038461538461538464,  
'Toby': 0.011538461538461539,  
'Party Guest': 0.0038461538461538464,  
'Clark': 0.015384615384615385,  
'Party Photographer': 0.019230769230769232,  
'Party Waiter': 0.0038461538461538464,  
'Brian': 0.03076923076923077},  
(9, 15): {'Pam': 0.1076923076923077,  
'Jim': 0.1,  
'Erin': 0.1,  
'Pete': 0.03076923076923077,  
'Dwight': 0.12307692307692308,  
'Kevin': 0.023076923076923078,  
'Nellie': 0.026923076923076925,  
'Meredith': 0.007692307692307693,  
'Phyllis': 0.023076923076923078,  
'Stanley': 0.0038461538461538464,  
'Angela': 0.015384615384615385,  
'Clark': 0.03461538461538462,  
'Oscar': 0.026923076923076925,  
'Darryl': 0.011538461538461539,  
'Nail stylist 1': 0.0038461538461538464,  
'Nail stylist 2': 0.007692307692307693,  
'Nail manager': 0.007692307692307693,  
'Brian': 0.038461538461538464,  
'Andy': 0.23846153846153847,  
'Jan': 0.03076923076923077,  
'David Wallace': 0.038461538461538464},  
(9, 16): {'David Wallace': 0.001996007984031936,  
'Andy': 0.1656686626746507,  
'David': 0.029940119760479042,  
'Erin': 0.0658682634730539,  
'Pam': 0.10978043912175649,  
'Stanley': 0.00998003992015968,  
'Phyllis': 0.01996007984031936,  
'Dwight': 0.08782435129740519,  
'Angela': 0.08383233532934131,  
'Pete': 0.08183632734530938,  
'Clark': 0.017964071856287425,  
'Shirley': 0.033932135728542916,  
'Oscar': 0.015968063872255488,  
'Creed': 0.007984031936127744,  
'Meredith': 0.013972055888223553,  
'Darryl': 0.00998003992015968,  
'Kevin': 0.00998003992015968,  
'Jim': 0.05588822355289421,  
'Isaac': 0.005988023952095809,  
'Athlead Coworker': 0.001996007984031936,  
'Toby': 0.029940119760479042,  
'Mark': 0.041916167664670656,  
'Nellie': 0.015968063872255488,  
'Roger': 0.001996007984031936,  
'Alice': 0.03792415169660679,  
'Gabe': 0.03992015968063872,
```

```
"Oscar's Computer": 0.001996007984031936},
(9, 17): {'Dwight': 0.2328767123287671,
'Creed': 0.0136986301369863,
'Erin': 0.0182648401826484,
'Pam': 0.0958904109589041,
'Jim': 0.0273972602739726,
'Phyllis': 0.0365296803652968,
'Kevin': 0.0547945205479452,
'Oscar': 0.0502283105022831,
'Mose': 0.0136986301369863,
'Zeke': 0.0410958904109589,
'Jeb': 0.0547945205479452,
'Todd Packer': 0.0639269406392694,
'Clark': 0.0228310502283105,
'German Minister': 0.0136986301369863,
'Fannie': 0.0867579908675799,
'Henry': 0.0136986301369863,
'Esther': 0.0091324200913242,
'Stanley': 0.0091324200913242,
'Nellie': 0.0091324200913242,
'Angela': 0.0365296803652968,
'Andy': 0.0228310502283105,
'Meredith': 0.0136986301369863,
'Aunt Shirley': 0.0136986301369863,
'Cameron': 0.0410958904109589,
'Darryl': 0.0045662100456621},
(9, 18): {'Kevin': 0.02830188679245283,
'Pam': 0.1320754716981132,
'Clark': 0.07232704402515723,
'Dwight': 0.11635220125786164,
'Phyllis': 0.018867924528301886,
'Darryl': 0.03773584905660377,
'Meredith': 0.009433962264150943,
'Group': 0.012578616352201259,
'Andy': 0.03459119496855346,
'Angela': 0.10062893081761007,
'Toby': 0.006289308176100629,
'Oscar': 0.09119496855345911,
'Jim': 0.09748427672955975,
'Promo Voice': 0.0031446540880503146,
'Ryan Howard': 0.05345911949685535,
'Erin': 0.009433962264150943,
'Mr. Ruger': 0.015723270440251572,
'Esther': 0.025157232704402517,
'Stanley': 0.015723270440251572,
'Nellie': 0.012578616352201259,
'Promo Announcer': 0.006289308176100629,
'Pete': 0.006289308176100629,
'Ruger Sister 1': 0.006289308176100629,
'Salesmen': 0.0031446540880503146,
'Salesman': 0.0031446540880503146,
'Ruger Sister 2': 0.0031446540880503146,
'Brian': 0.07232704402515723,
'Senator': 0.0031446540880503146,
'Angela & Oscar': 0.0031446540880503146},
(9, 19): {'Stanley': 0.07692307692307693,
'Erin': 0.03663003663003663,
'Oscar': 0.02564102564102564,
'Andy': 0.11355311355311355,
'Phyllis': 0.018315018315018316,
'Dwight': 0.22344322344322345,
'Everyone': 0.007326007326007326,
'Nellie': 0.047619047619047616,
'Pete': 0.007326007326007326,
```

'Pam': 0.03296703296703297,
'Jim': 0.054945054945054944,
'Toby': 0.054945054945054944,
'Clark': 0.13553113553113552,
'Angela': 0.014652014652014652,
'Robert': 0.02564102564102564,
'Meredith': 0.007326007326007326,
'Kevin': 0.018315018315018316,
'Crowd': 0.007326007326007326,
'Reporter #1': 0.003663003663003663,
'Reporter #2': 0.003663003663003663,
'Creed': 0.007326007326007326,
'Man': 0.02197802197802198,
'Mrs. Davis': 0.018315018315018316,
'Carla': 0.029304029304029304,
'Todd': 0.007326007326007326},
(9, 20): {'Erin': 0.06837606837606838,
'Toby': 0.029914529914529916,
'Clark': 0.02564102564102564,
'Dwight': 0.08974358974358974,
'Nellie': 0.08547008547008547,
'Pam': 0.09401709401709402,
'Andy': 0.16666666666666666,
'Darryl': 0.042735042735042736,
'Jim': 0.07264957264957266,
'Stanley': 0.008547008547008548,
'Oscar': 0.008547008547008548,
'Robert': 0.008547008547008548,
'Angela': 0.06837606837606838,
'Group': 0.008547008547008548,
'Phillip': 0.004273504273504274,
'Carla Fern': 0.021367521367521368,
'Woman': 0.01282051282051282,
'Kevin': 0.042735042735042736,
'Director': 0.05555555555555555,
'Producer': 0.02564102564102564,
'Pete': 0.017094017094017096,
'Bob Vance, Vance Refrigeration': 0.004273504273504274,
'Esther': 0.02564102564102564,
'Production Assistant': 0.004273504273504274,
'Creed': 0.004273504273504274,
'Pastor': 0.004273504273504274},
(9, 21): {'Jim': 0.1649214659685864,
'Pam': 0.07853403141361257,
'Andy': 0.17801047120418848,
'Oscar': 0.049738219895287955,
'Angela': 0.07853403141361257,
'Kevin': 0.034031413612565446,
'Dwight': 0.14136125654450263,
'David Wallace': 0.0968586387434555,
'Erin': 0.02356020942408377,
'Creed': 0.005235602094240838,
'Clark': 0.020942408376963352,
'Phyllis': 0.010471204188481676,
'Pete': 0.013089005235602094,
'Darryl': 0.028795811518324606,
'Stanley': 0.010471204188481676,
'Sensei': 0.028795811518324606,
'Esther': 0.002617801047120419,
'Nellie': 0.013089005235602094,
'Meredith': 0.002617801047120419,
'Toby': 0.01832460732984293},
(9, 22): {'Erin': 0.043912175648702596,
'Kevin': 0.059880239520958084,

'Dwight': 0.17365269461077845,
'Creed': 0.007984031936127744,
'Philip': 0.001996007984031936,
'Oscar': 0.05588822355289421,
'Angela': 0.07784431137724551,
'Esther': 0.007984031936127744,
'Andy': 0.08782435129740519,
'Check-in guy': 0.013972055888223553,
'Jim': 0.17764471057884232,
'Pam': 0.06786427145708583,
'Everyone': 0.001996007984031936,
'Meredith': 0.017964071856287425,
'Stanley': 0.007984031936127744,
'Casey': 0.043912175648702596,
'Angela & Oscar': 0.003992015968063872,
'Mark McGrath': 0.007984031936127744,
'Pete': 0.007984031936127744,
'Darryl': 0.059880239520958084,
'Glenn': 0.001996007984031936,
'Jim & Dwight': 0.003992015968063872,
'Clark': 0.00998003992015968,
'Soldier': 0.001996007984031936,
'Hank': 0.001996007984031936,
'Phyllis': 0.013972055888223553,
'Camera Crew': 0.001996007984031936,
'Phillip': 0.005988023952095809,
'People in line': 0.001996007984031936,
'Santigold': 0.007984031936127744,
'Aaron Rodgers': 0.007984031936127744,
'Clay Aiken': 0.003992015968063872,
'Bartender': 0.007984031936127744},
(9, 23): {'Dwight': 0.14559386973180077,
'CameraMan': 0.0038314176245210726,
'Kevin': 0.05938697318007663,
'Stanley': 0.01532567049808429,
'Meredith': 0.028735632183908046,
'Pam': 0.08620689655172414,
'All': 0.019157088122605363,
'Oscar': 0.034482758620689655,
'Jim': 0.13984674329501914,
'Toby': 0.02490421455938697,
'Crowd': 0.0019157088122605363,
'Angela': 0.044061302681992334,
'Phyllis': 0.032567049808429116,
'Malcolm': 0.005747126436781609,
'Zeke': 0.0038314176245210726,
'Clark': 0.005747126436781609,
'Andy': 0.05938697318007663,
'Casey Dean': 0.0019157088122605363,
'Bill Hader': 0.007662835249042145,
'Seth Mayers': 0.005747126436781609,
'Dakota': 0.005747126436781609,
'Nellie': 0.017241379310344827,
'Darryl': 0.03639846743295019,
'Guy': 0.0038314176245210726,
'Rachel': 0.013409961685823755,
'Stripper': 0.009578544061302681,
'Erin': 0.0210727969348659,
'Jakey': 0.007662835249042145,
'Mose': 0.0038314176245210726,
'Man': 0.0019157088122605363,
'Man 1': 0.0019157088122605363,
'David Wallace': 0.0038314176245210726,
'Pete': 0.005747126436781609,


```
'Woman 1': 0.0019157088122605363,
'Woman 2': 0.0038314176245210726,
'Man 2': 0.0038314176245210726,
'Moderator': 0.0038314176245210726,
'Man 3': 0.0019157088122605363,
'Woman 3': 0.0019157088122605363,
'Woman 4': 0.0038314176245210726,
'Joan': 0.009578544061302681,
'Ed': 0.0038314176245210726,
'Usher': 0.0019157088122605363,
'Creed': 0.01532567049808429,
'Kelly': 0.022988505747126436,
'Ravi': 0.013409961685823755,
'Ryan': 0.028735632183908046,
'Michael': 0.0038314176245210726,
'Minister': 0.0038314176245210726,
'Val': 0.005747126436781609,
'Carol Stills': 0.0019157088122605363,
'Carol': 0.0019157088122605363,
'Buyer': 0.0038314176245210726,
'Woman': 0.0019157088122605363,
'Photographer': 0.0019157088122605363}}
```

Additional Questions

Whose name is referred to most frequently in the lines?

```
In [85]: character_to_num_lines_referred = defaultdict(lambda : 0)
def increment_if_referred(line_text):
    for character in character_names:
        if character.lower() in line_text.lower().split():
            character_to_num_lines_referred[character] += 1

def strip_punctuations(text):
    punctuations = '!'()-[]{};:'"\,<>./?@#$$%^&*~''
    for punc in punctuations:
        text = text.replace(punc, " ")
    return text

office_data.line_text.apply(lambda text: strip_punctuations(text)).apply(
    lambda x: increment_if_referred(x),
)
```

```
Out[85]: 0      None
1      None
2      None
3      None
4      None
...
59904  None
59905  None
59906  None
59907  None
59908  None
Name: line_text, Length: 59909, dtype: object
```

```
In [86]: sorted([(val, key) for key, val in character_to_num_lines_referred.items()])
```

```
Out[86]: [(1532, 'Pam'),
          (1806, 'Jim'),
          (2003, 'Dwight'),
          (2591, 'Michael'),
          (2898, 'All')]
```

Draw a word cloud of the lines

```
In [95]: from wordcloud import WordCloud, STOPWORDS
import matplotlib.pyplot as plt
```

```
In [90]: stopwords = set(STOPWORDS)
```

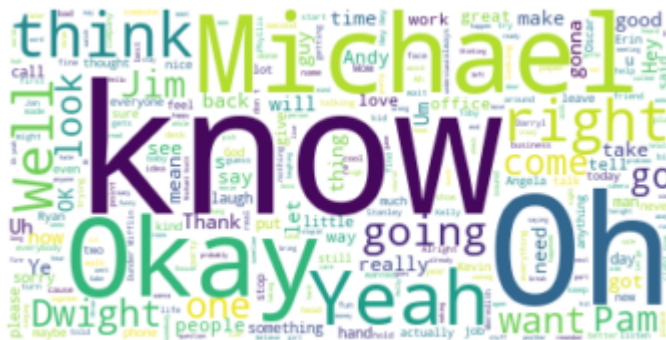
```
In [91]: wc = WordCloud(background_color="white", max_words=2000,
                        stopwords=stopwords, contour_width=3, contour_color='steelblue')
```

```
In [92]: all_text = " ".join(office_data.line_text)
wc.generate(all_text)
```

```
Out[92]: <wordcloud.wordcloud.WordCloud at 0x7ffd11faaf40>
```

```
In [103]: # show
plt.imshow(wc, interpolation='bilinear')
plt.axis("off")
```

```
Out[103]: (-0.5, 399.5, 199.5, -0.5)
```



```
In [ ]:
```