# Emerging Adulthood Measured at Multiple Institutions

Open Science Framework - osf.io

# Example of Subjective Well-being section

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
In most ways my life is close to my ideal.	0	0	0	0	0	0	0
I am satisfied with my life.	0	0	0	0	0	0	0
So far I have gotten the important things I want in life.	0	0	0	0	0	0	0

# Mental/Emotional Categories

- Markers of Adulthood
- Idea
- Subjective Well-being
- Mindful
- Belonging
- Efficacy

- Support
- Transgressions
- Stress
- Marriage
- Narcissism

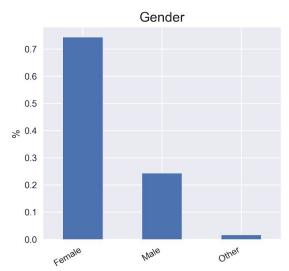
# Cleaning

#### Dropped observations:

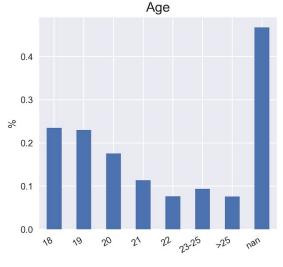
- < 10 min
- Missed attention
- Complete < 80%
- High bias responders
- Duplicates

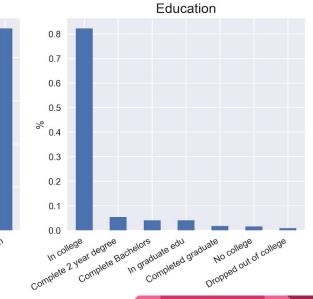
Total in clean dataset: 2826

# **Demographics**



#### Distributions of Full Dataset





# Direction

#### Overview

- Focus on mental/emotional questions
- Hold out:
  - Age, Sex, Education, Income
  - Parents/Siblings
  - Physical Disabilities/Ailments
  - Location
  - Military

# Hypothesis

 Holding out the Subjective Well-being questions, the data will cluster meaningfully around that topic.



# NMF and Topic Themes

#### Self-Worth / Confidence

- belong\_1 -> If other people don't seem to accept me, I don't let it bother me.
- moa2#2\_1 -> Make independent decisions
- efficacy\_4 -> I am confident that I could deal efficiently with unexpected events.
- efficacy\_5 -> Thanks to my resourcefulness, I know how to handle unforeseen situations.
- efficacy\_6 -> I can solve most problems if I invest the necessary effort.
- efficacy\_10 -> I can usually handle whatever comes my way.
- belong\_7 -> Being apart from my friends for long periods of time does not bother me.
- moa2#1\_1 -> Make independent decisions
- efficacy\_7 -> I can remain calm when facing difficulties because I can rely on my coping abilities.
- efficacy\_1 -> I can always manage to solve difficult problems if I try hard enough.

#### Mindfulness

```
mindful 12
             -> I drive places on automatic pilot and then wonder why I went there.
mindful 7
             -> It seems I am running on automatic, without much awareness of what I'm doing.
mindful_15
             -> I snack without being aware that I'm eating.
mindful 8
             -> I rush through activities without being really attentive to them.
             -> I find myself doing things without paying attention.
mindful_14
mindful 10
             -> I do jobs or tasks automatically, without being aware of what I'm doing.
mindful 9
             -> I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now.
mindful 2
             -> I break or spill things because of carelessness or not paying attention.
mindful_5
             -> I tend not to notice feelings of physical tension until they really grab my attention.
mindful 3
            -> I find it difficult to stay focused on what's happening in the present.
```

#### Achievement

```
-> Be employed full-time
moa2#2_5
moa2#2_2
            -> Become capable of supporting a family financially
moa1#2_1
            -> Financially independent
            -> No longer living in parents' household
moa1#2_2
            -> Become capable of caring for children
moa2#2_3
            -> Committed to long-term love relationship
moa1#2_10
moa1#2 3
            -> Finished with education
moa1#2 6
            -> Settled into a long-term career
moa1#2_4 -> Married
moa2#2_10 -> Capable of supporting parents financially
```

# Family

```
moa1#1 4
             -> Married
moa1#1 5
            -> Have at least one child
moa1#1_10
             -> Committed to long-term love relationship
moa2#1_3
             -> Become capable of caring for children
moa1#1_6
             -> Settled into a long-term career
             -> Become capable of supporting a family financially
moa2#1 2
moa2#1_10
             -> Capable of supporting parents financially
            -> Finished with education
moa1#1 3
moa2#1_5
            -> Be employed full-time
            -> In regard to my getting married someday, it is...
marriage2
```

### Support

```
support_5
            -> I have a special person who is a real source of comfort to me.
support_2
            -> There is a special person with whom I can share my joys and sorrows.
            -> There is a special person who is around when I am in need.
support_1
            -> There is a special person in my life who cares about my feelings.
support_10
support_7
            -> I can count on my friends when things go wrong.
support_9
            -> I have friends with whom I can share my joys and sorrows.
support_12 -> I can talk about my problems with my friends.
            -> I get the emotional help and support I need from my family.
support_4
support_6 -> My friends really try to help me.
support_8 -> I can talk about my problems with my family.
```

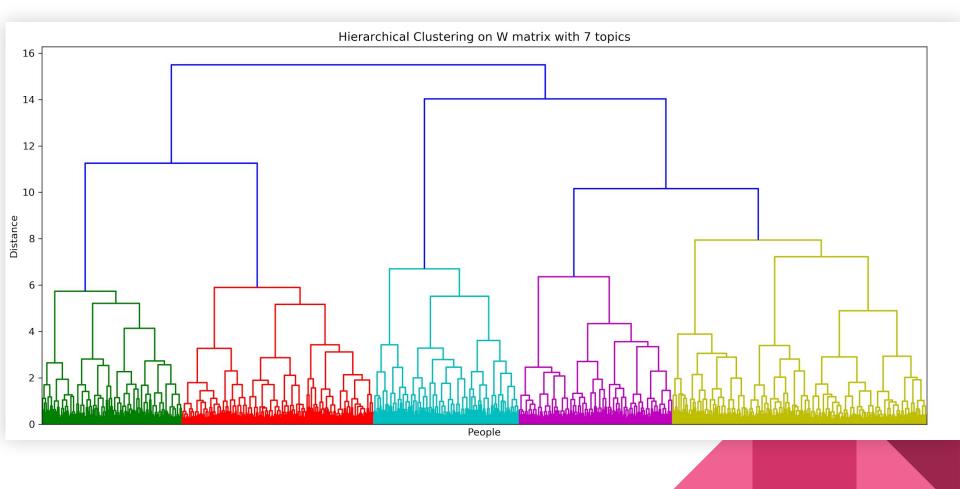
# Self-Control / Responsibility

```
-> Avoid becoming drunk
moa1#2 7
moa1#2_8
            -> Avoid illegal drugs
moa1#1_8
            -> Avoid illegal drugs
            -> Avoid becoming drunk
moa1#1_7
moa1#2_9
             -> Use contraception if sexually active and not trying to conceive a child
             -> Avoid drunk driving
moa2#2 6
moa1#1 9
             -> Use contraception if sexually active and not trying to conceive a child
belong_7
             -> Being apart from my friends for long periods of time does not bother me.
moa2#2 4
            -> Accept responsibility for your actions
            -> Learn always to have good control of your emotions
moa2#1_8
```

#### Neuroticism

belong\_10 -> My feelings are easily hurt when I feel that others do not accept me. belong\_8 -> I have a strong need to belong. stress\_2 -> ...felt that you were unable to control the important things in your life? -> ... felt difficulties were piling up so high that you could not overcome them? stress\_10 belong\_5 -> I want other people to accept me. belong\_9 -> It bothers me a great deal when I am not included in other people's plans. stress 3 -> ... felt nervous and "stressed"? belong\_2 -> I try hard not to do things that will make other people avoid or reject me. -> ...found that you could not cope with all the things that you had to do? stress 6 idea 3 -> Is this period of your life a time of feeling stressed out?

# Hierarchical Clustering



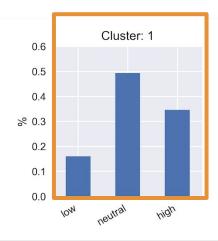


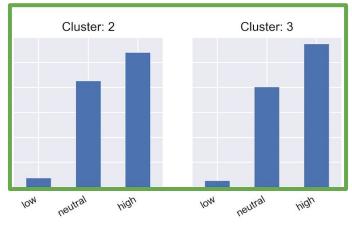
# Chi Square p-values for SWB counts

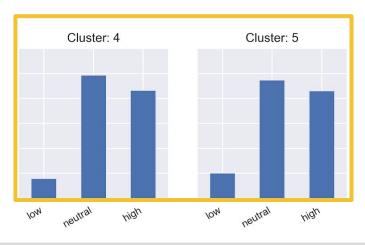
cluster	high	low	neutral	vs 1	vs 2	vs 3	vs 4	vs 5
1	155.0	72.0	221.0	1.0	0.00	0.00	0.00	0.00
2	330.0	22.0	260.0	0.0	100	0.41	0.00	0.00
3	266.0	12.0	186.0	0.0	0.41	100	0.00	0.00
4	211.0	38.0	241.0	0.0	0.00	0.00	100	0.38
5	348.0	81.0	383.0	0.0	0.00	0.00	0.38	100



# Subjective Well-being Distributions



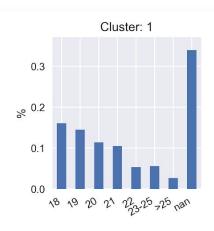


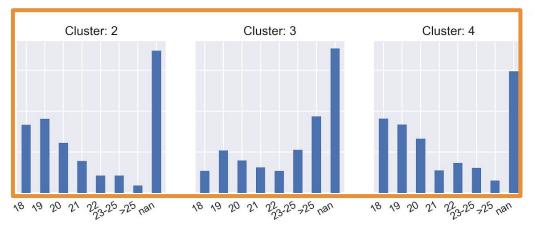


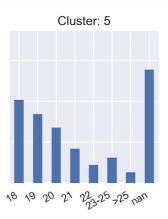
#### **Gender Distributions**



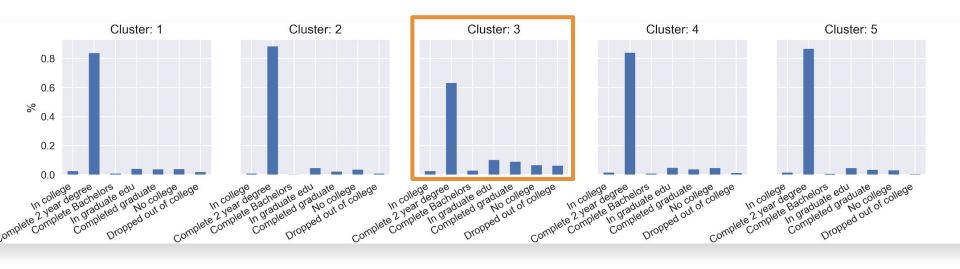
## Age Distributions







#### **Education Distributions**



# Next Steps

- Dig into the differences of the clusters
- Include open-ended text sections
  - NLP Sentiment Analysis
- Use durations as features, or weights to sections
- Predict targets based on subsets of features or demographics
- Test relationships between family/upbringing and belonging/support

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