



# Carleton

## How Carleton Students Change

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# Available Data

- Cross-over area between assessment and traditional IR
- Documenting student growth and change
- Freshman and senior surveys
- Due to high retention rate, able to link individuals
- Data from five other highly selective national coed liberal arts colleges, one in the Midwest and four in the northeast

# Three Types of Change

- Political and religious views
- Importance of life goals
- Learning gains
  - Is being prepared to learn related to how much they learn?
  - How many were less prepared and learned less?

# Politics and Religion

Enrolled Student Survey – Spring 2015

Linked seniors to CIRP Fall 2011

Linked sophomores to CIRP Fall 2013

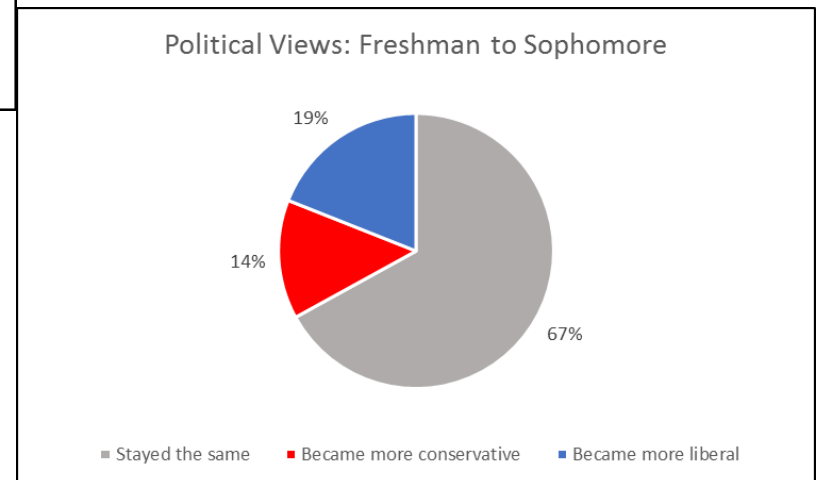
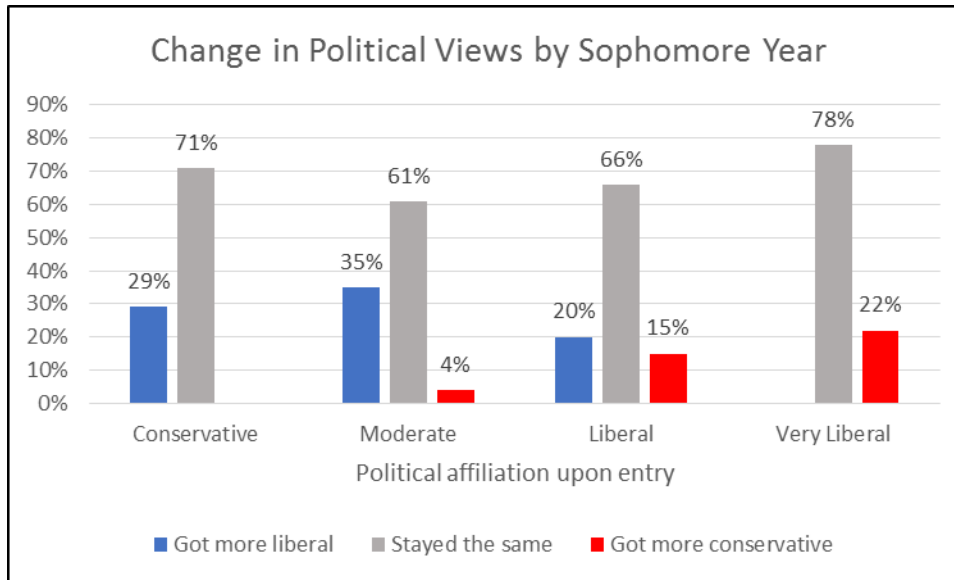
## Political views at matriculation:

- 11% very liberal
- 65% liberal
- 20% moderate
- 4% conservative

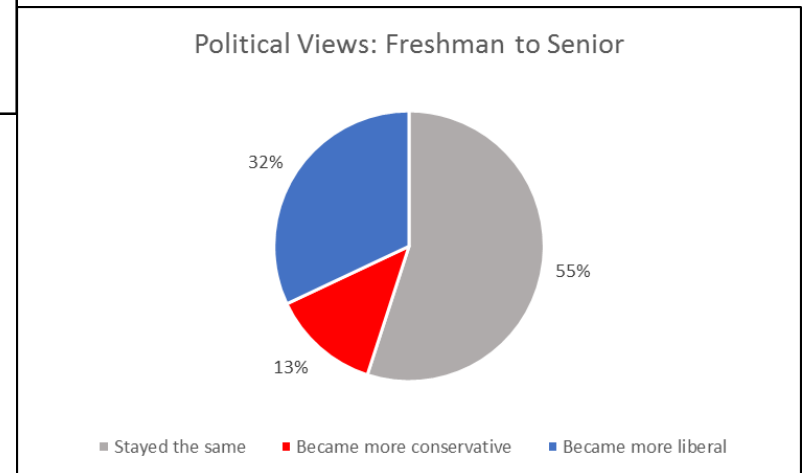
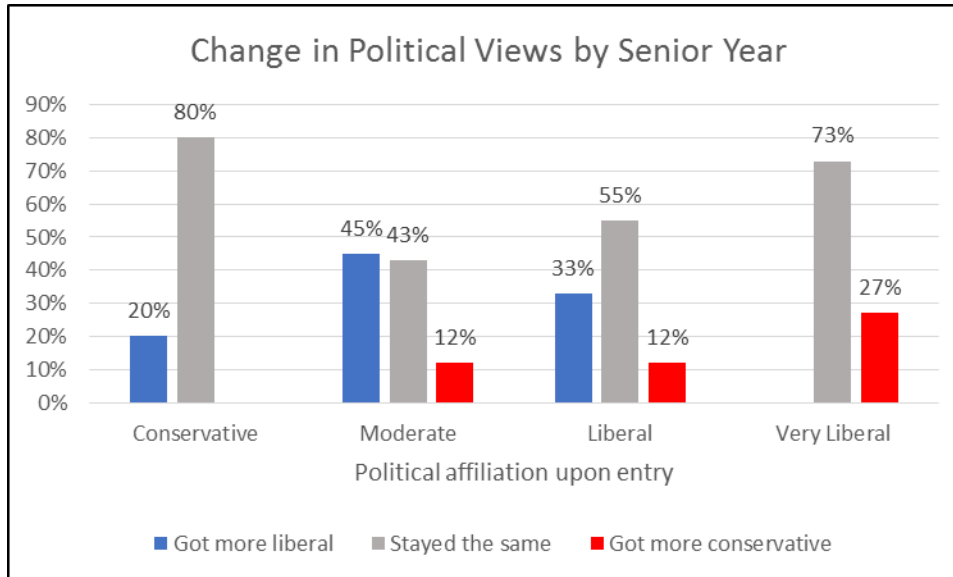
## Religious affiliation at matriculation:

- 30% Christian
- 20% some other religion
- 50% no religion

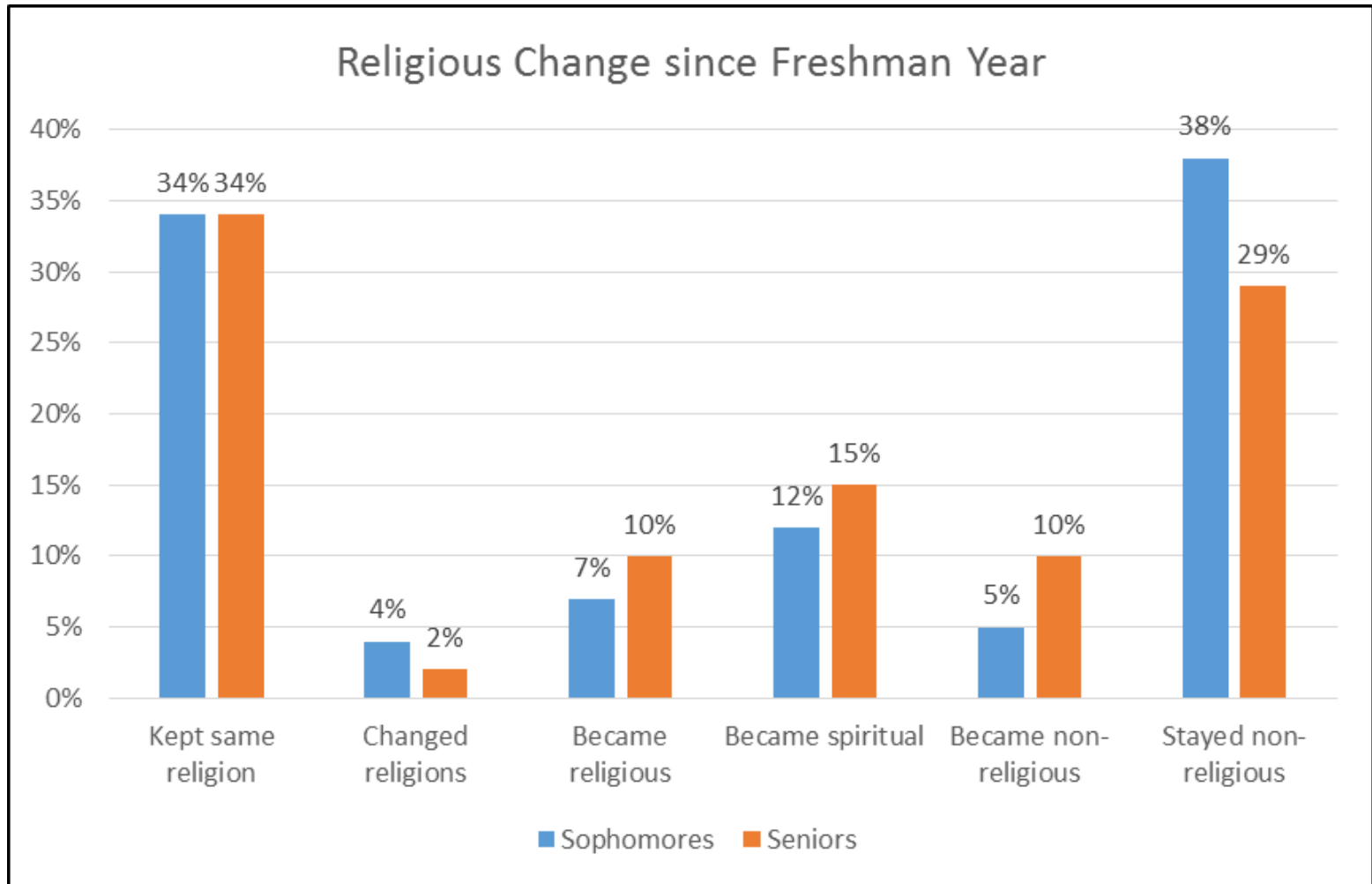
# Political Change by Sophomore Year



# Political Change by Senior Year



# Religious Change





# Important Life Goals

“As you think about the future, how important is it to you to be a leader in your community?”

- Matched Pair T-tests
- Senior Survey Spring 2016
  - Linked to Survey of New Students Fall 2012
- 274 seniors took the Senior Survey. 93% of them had also taken the Survey of New Students.

# Goals with highest average value

	<b>FY Average</b>	<b>SR Average</b>	<b>5 Peer Colleges</b>
Traveling abroad	3.2 (of 4)	3.0	3.2 to 3.1
Learning about other cultures	3.1	2.9	3.1 to 3.0
Relate well with diverse people	3.0	3.0	3.1 to 3.1

# Importance of traveling abroad:

	<b>% say essential or very important</b>	<b>Studied abroad-average importance</b>	<b>No study abroad – average importance</b>
<b>FY</b>	77%	3.3	2.9
<b>SR</b>	70%	3.1	2.7

- A majority consider it very important.
- On average, it's more important to those who study abroad.
- But it gets less important for both groups.

# Which goals change the most?

	<b>Carleton</b>	<b>5 Peer Colleges</b>
Contributing to science	2.7 to 2.2 (t=6.8)	2.5 to 2.3 (t=6.0)
Live abroad	2.6 to 2.2 (t=5.7)	2.5 to 2.3 (t=7.9)
Volunteering	2.8 to 2.4 (t=7.7)	2.8 to 2.5 (t=9.6)

# Everything gets less important

- Why? This surprised us.
- They all started so high they couldn't grow?
- Freshmen think about the goals as things they want to do during college?
- Or, the things that get more important aren't on the survey – there are probably some of these
- Most of the things the survey measures are not academic.
  
- Does Carleton want to influence students' life goals? It often feels that way.

# Here's Carleton's Mission:

- Provide an exceptional undergraduate liberal arts education
- Prepare students to lead lives of learning
- Encourage curiosity and intellectual adventure
- Develop critical and creative talents
- Develop qualities of mind and character
  - These are unspecified – maybe this is where goals and values enter the mission, especially as part of student culture.

# How Much They Learned

- “How well prepared do you feel you are to think critically while in college?” (FY)
- To what extent has your college contributed to your ability to think critically? (SR)

Linked unit-record data from  
Survey of New Students Fall 2012  
Senior Survey Spring 2016

# Preparation and Learning

- Caveat – students could be wrong, either about how prepared they were or about how much they learned. Both are perceptions.
- However, how prepared you feel can affect how you behave as a student.
- Also, we want students to feel like they learned a lot – thinking they did not learn is a bigger problem.
- Ideally, there would be no relationship between how prepared you felt and how much you think you learned – we want all students to feel they learned a lot, regardless of initial preparation.



# Types of learning with no significant correlation: preparation is not related to learning (Pearson coefficient $-.02$ to $0.12$ )

- Writing
- Critical thinking
- Foreign language
- Research
- Original ideas
- Judging arguments
- Synthesize ideas
- Relate to diverse people
- Develop personal ethics
- Understand self

- A negative correlation would mean that student who came feeling less prepared felt they had experienced more learning.
- Nothing turned out this way.

These had positive correlations: Students who felt more prepared left feeling they had learned more (coefficients from 0.15 to 0.33)

- Quantitative skills
- Understand science
- Appreciate arts
- Global awareness
- Place current problems in perspective
- Leadership skills
- Oral communication
- Teamwork skills
- Resolve interpersonal conflicts

# Quantitative Skills and Science – is there a problem?

- Why might students who feel less prepared learn less?
- Students might do worse because they were insecure. They may also take fewer courses.
- Required to take one science class and three Q classes.
- However, Q can be filled with work that is more “formal reasoning” than manipulating numbers.
- The correlations are low (science 0.16, quant 0.19), so the relationship between preparation and learning is weak.

# Peer Colleges had Stronger Correlations

	<b>Carleton</b>	<b>Peer Colleges</b>
Understand science	0.16	0.33
Quantitative skills	0.19	0.22
Foreign language	Not significant	0.21

- Higher correlations show a tendency for students who arrived with better preparation to leave feeling they learned more.
- None of these subjects are required at all 5 other colleges. So students who feel more prepared might be more likely to study these things.
- Suggests that Carleton's requirements really are doing their job and making sure everyone learns something about everything!

# Leadership

- Definitions of leadership? What does leadership mean in college?
  - Negative when it perpetuates social patterns of dominant groups
  - Group work, department committees, etc.
- Strong correlations:
  - Freshman leadership correlates with senior leadership: community (.52), field (.53)
  - Freshman importance correlates with preparation: community (.39), field (.27)
- 10% felt unprepared and did not learn much (**31% of int**)

Importance... (very important or essential)	FY	SR
of being a leader in one's community	53% (37% of int)	47%
of being a leader in one's field	70%	52%

# How Much They Learned

## Method #2 Quadrant Analysis

	Low Learning	High Learning
Low Preparation	Not good	Good
High Preparation	Okay?	Good

# Resolving interpersonal conflicts

- Not clear where students would learn this – not overtly taught. So we are concerned that preparation really would drive learning.
- 70% of seniors feel learned quite a bit or very much.
- 10% came “low preparation” and left “low learning.”

## However:

- Among liberal/very liberal students, only 7% low/low.
- Among moderate/conservative students, 19% were low/low.



# Low Preparation & Low Learning: How Many is Too Many?

	Low Preparation & Low Learning
Global Awareness	7%
Quantitative Skills	8%
Resolve Interpersonal Conflicts	10%
Leadership Skills	10%
Place Current Problems in Cultural or Historical Perspective	11%
Understand Science	14%
Appreciate Art	17%

# Global Awareness & Study Abroad

<b>NO OCS</b>	Low learning	High learning
Low preparation	14%	14%
High preparation	28%	44%

<b>WENT ABROAD</b>	Low learning	High learning
Low preparation	5%	11%
High preparation	23%	61%

# Good Issues for Faculty Discussion

- Are all students learning regardless of preparation at entry?
- What percent of students learning less about something is okay?
- If it's more than that, or if particular subgroups feel they are learning less, what should be done about it?

# Is College Life-Changing?

- Learning is good!
- But these surveys are not providing evidence of other changes.
- We both experienced major changes at college, that would not have been captured by these surveys.
- If we're going to use traditional student surveys to inform assessment, maybe we need to rethink what questions we're asking.

# Discussion?