

## Idaho's Gender Gap in Go-On Rates

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*Abstract: The Idaho State Board of Education wants to increase the college go-on rate in Idaho. In order to do that, the Board needs to understand which students do and which students do not choose to go on to college. This paper shows that female students are much more likely than male students to go on to college. It shows that the gender gap is persistent across time and across all regions in Idaho. It also suggests future research for understanding why the gender gap in go-on rates exists.*

In the United States, women are more likely than men to attend college the fall after their high school graduation. In 2014, 73 percent of female high school graduates attended a 2- or 4-year college the fall after high school graduation compared to 64 percent of male high school graduates.<sup>2</sup> This paper demonstrates that similar gender differences in the go-on rate<sup>3</sup> is present in Idaho. Additionally, this paper demonstrates that the gender gap is persistent across time and is present in every region in Idaho. Understanding the degree to which a gender gap in the go-on rate exists in Idaho and the circumstances in which the gap is largest will help the State Board of Education craft appropriate policies to increase both the go-on rate and postsecondary credential attainment in Idaho.<sup>4</sup>

This paper examines go-on rates at different points in time in order to understand the persistence of gender differences. It examines go-on rates for the fall immediately following high school graduation, one year after high school graduation, two years after high school graduation, and three years after high school graduation. Three-year go-on rates are important for Idaho because three-year rates can account for differences in behavior between men and women with regard to going on a mission for the Church of Jesus Christ of Latter Day Saints (LDS). LDS men can go on a 2-year mission at a younger age than LDS women. Therefore, a gender gap that exists in fall immediate go-on rates may be reduced at the three-year point if the fall-immediate gap is being driven by this difference in mission age requirements.

This paper also examines go-on rates by region in Idaho. Gender gaps in go-on rates may not be present to the same degree in every region of Idaho. Understanding which regions have the largest gaps in go-on rates will guide future work on identifying factors which affect the gender gap. Gender differences in go-on rates cannot be attributed to factors that are constant across genders. For instance, both males

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<sup>2</sup> Source: U.S. Census Bureau; Current Population Survey, October 2014, Table 7. Accessed October 23, 2015.  
<http://www.census.gov/hhes/school/data/cps/2014/tables.html>

<sup>3</sup> The go-on rate is the rate at which high school graduates transition to college (less than 2-year, 2-year colleges, or 4-year colleges). For each cohort of graduates, the Office of the State Board of Education (OSBE) measures the go-on rate at different points in time: the fall immediately following graduation, one year after graduation, two years after graduation, and three years after graduation.

<sup>4</sup> The State Board has set a goal that 60 percent of Idahoans age 25 to 34 will have a degree or certificate by 2020.

and females pay the same tuition to attend college in Idaho. Therefore, tuition is not driving the lower male go-on rate. Males and females likely have similar parental education levels. Therefore, parental education levels are not driving the difference. It is possible that military service plays a role in the gap. Idaho males are more likely to enlist in the military than Idaho females.<sup>5</sup> It is also possible that there are simply more employment opportunities for males without a postsecondary credential than for females without a postsecondary credential. Understanding what contributes to the gap will be important for understanding how to think of and how to address the gap. That will be the role of future research. This paper takes the first step by documenting the extent of the gap.

### Go-On rates over time

Figure 1: Idaho Go-On rates over time for graduates from 2011 through 2014

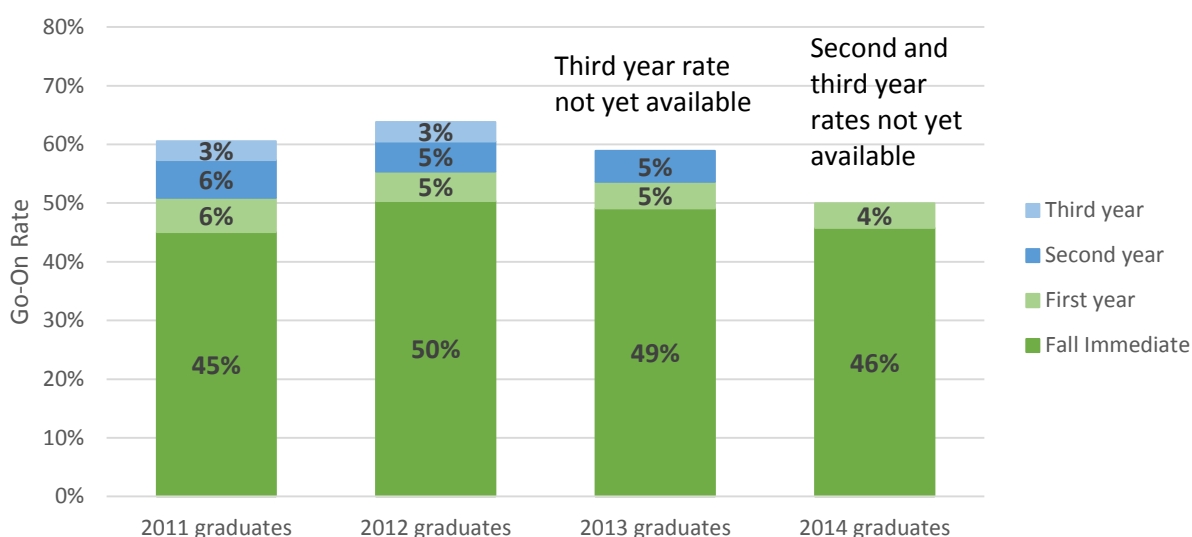


Figure 1 shows go-on rates at different points in time for high school graduates from 2011 through 2014. The majority of students who go-on do so in the fall immediately after their high school graduation. However, a significant share of those who go-on within three years wait to do so. Twenty-five percent of 2011 graduates and twenty-percent of 2012 graduates who went on to college within three years waited after the first fall to do so.<sup>6</sup> The trends for the 2013 and 2014 graduates look to be similar.

Figure 2 shows the same information as Figure 1 but broken down by gender. A sizeable majority of Idaho females do go on to college. Sixty-seven percent of females in the 2011 cohort and 70 percent of females in the 2012 cohort went on to college within three years of high school graduation. In contrast 55 percent of males in the 2011 cohort and 57 percent of males in the 2012 cohort went on within three years of high school graduation.

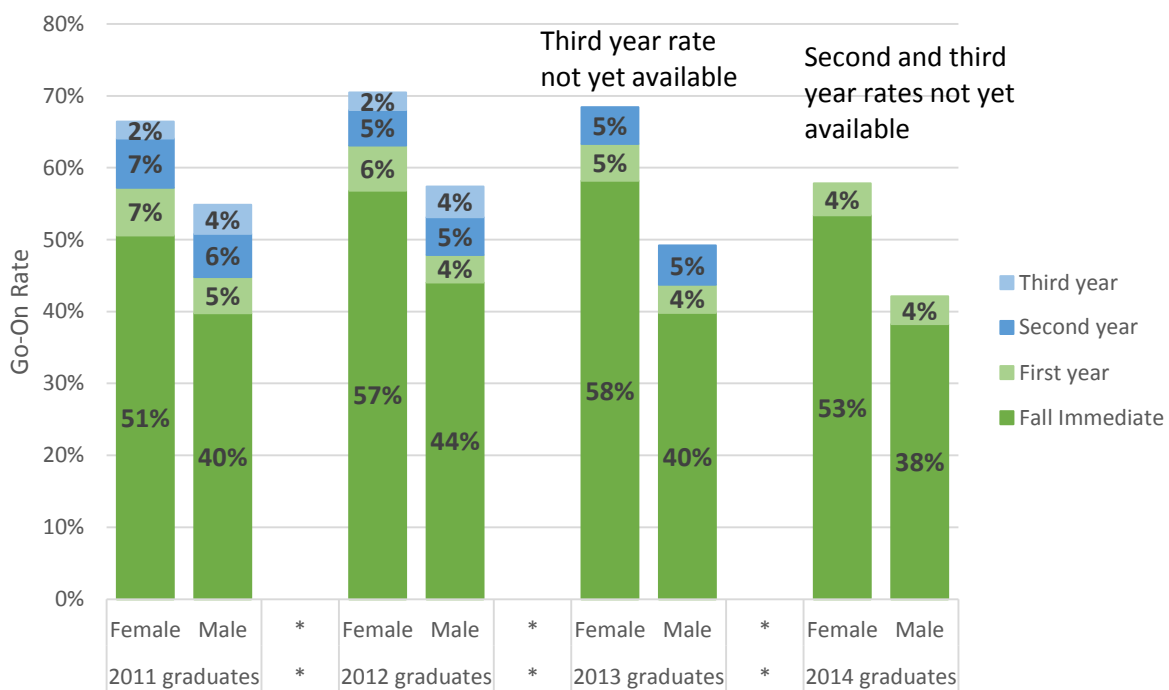
<sup>5</sup> In FY2013, 838 Idaho males, without prior service, enlisted into the active component of the military. The comparable figure for females is 156. Source: Office of the Under Secretary of Defense, Personnel and Readiness; Population Representation in the Military Services, Fiscal Year 2013. Accessed September 3, 2015. <https://www.cna.org/pop-rep/2013/index.html>

<sup>6</sup> Sixty percent of 2011 graduates went on to college within three years. Forty-five percent of 2011 graduates went on the fall immediately after graduation. Therefore, 25 percent  $((60-45)/60)$  of those who went on within three years waited after the first fall to do so.

Females are more likely than males to have gone on during the fall immediately after graduation. The average fall immediate go-on rate for females across the four cohorts is 55 percent. For males, it is 41 percent. As discussed above, the difference between genders persists across time. For all four cohorts, the gender gap either stayed the same or increased as time elapsed. For instance, in 2012, the fall immediate gap was 13 percentage points. The first and second year gaps were both at 15 percentage points. And the third year gap returned to 13 percentage points. Across all cohorts, females are much more likely to go-on immediately after high school graduation and males never catch up to them.

The 2013 graduates were the first cohort to be affected by a change in the LDS mission age. In October 2012, the mission age changed from 19 to 18 for males and from 21 to 19 for females. Between 2012 and 2013, the male fall immediate go-on rate decreased by 4 percentage points while the female fall immediate go-on rate increased by 1 percentage point. If this increase in the gender gap was due to the change in mission age, then one would expect the change to be felt most heavily in certain regions of Idaho. This is investigated below. However, even if it were due to the change in mission age, it is too early to say whether or not the change in mission age will affect the three year go-on rates.

Figure 2: Idaho Go-On rates over time for graduates from 2011 through 2014, by gender



### Go-On rates by region and gender

Idaho is split into six education regions (see Figure 3). In addition to schools located in the regions, Idaho has virtual charter schools and distance learning. Table 1 shows the share of high school graduates (averaged over the four cohorts) in each region and the share in virtual/distance learning. Region 3 contains almost half of Idaho graduates (44 percent). Region 6 is the next largest containing 16 percent of the high school graduates while Region 2 is the smallest, containing just 5 percent of the graduates.

There is diversity between the regions in terms of student ethnicity (see Appendix Figure 1). Appendix Figure 1 shows the share of 2014 high school graduates in each region identified as Hispanic. Regions 1 and 2 have the smallest share of Hispanic students while Region 4 has the largest share. There is some evidence that the gender gap is slightly higher for non-Hispanic students.<sup>7</sup> Therefore, one would expect any ethnic effect to increase the gender gap most in Regions 1 and 2.

Regions 4, 5, and 6 cover counties that are identified as having a large LDS population while Regions 1 and 2 cover counties that are identified as having a small LDS population (see Appendix Figure 2). Therefore, any effect of LDS missions on the go-on rate would likely be most heavily felt in Regions 4, 5, and 6 and most lightly felt in Regions 1 and 2.

Figure 3: Education regions in Idaho

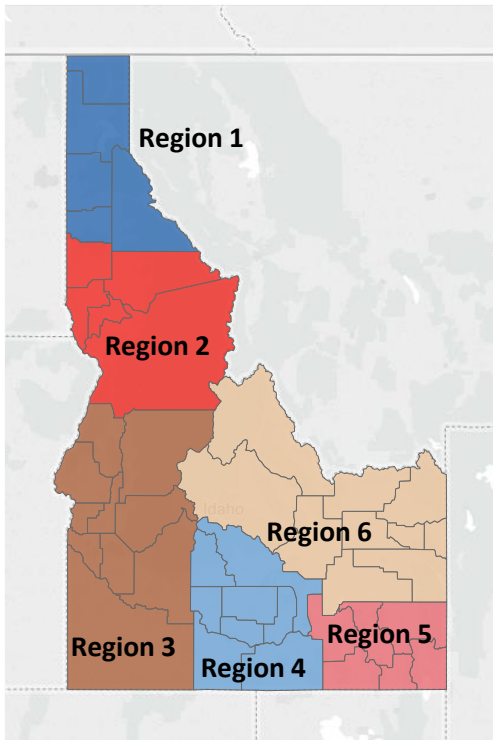


Table 1: Share of high school graduates in each region

|                              | Share of 2014 high school graduates |
|------------------------------|-------------------------------------|
| Region 1                     | 12%                                 |
| Region 2                     | 5%                                  |
| Region 3                     | 44%                                 |
| Region 4                     | 12%                                 |
| Region 5                     | 9%                                  |
| Region 6                     | 16%                                 |
| Virtual or Distance Learning | 2%                                  |

Figures 4 and 5 show fall immediate and three-year go-on rates by region in Idaho.<sup>8</sup> Averages are calculated for the 2011-2012 and 2013-2014 cohorts. The averages are computed in order to more easily compare regions in terms of both fall immediate and three-year go-on rates. For fall immediate go-on rates, Region 1 and the virtual region were the only regions in which the 2013-2014 average go-on rate was higher than the 2011-2012. Regions 2 and 3 were about the same while Regions 4, 5, and 6 were lower across 2013-2014 than 2011-2012.

<sup>7</sup> The gender gap in three-year go-on rates averaged 13 percentage points for non-Hispanic students and 9 percentage points for Hispanic students. The average was taken over the 2011 and 2012 cohorts.

<sup>8</sup> The rest of this paper only examines fall immediate and three-year go-on rates.

Figure 4: Idaho fall immediate Go-On rates for graduates from 2011 through 2014, by region

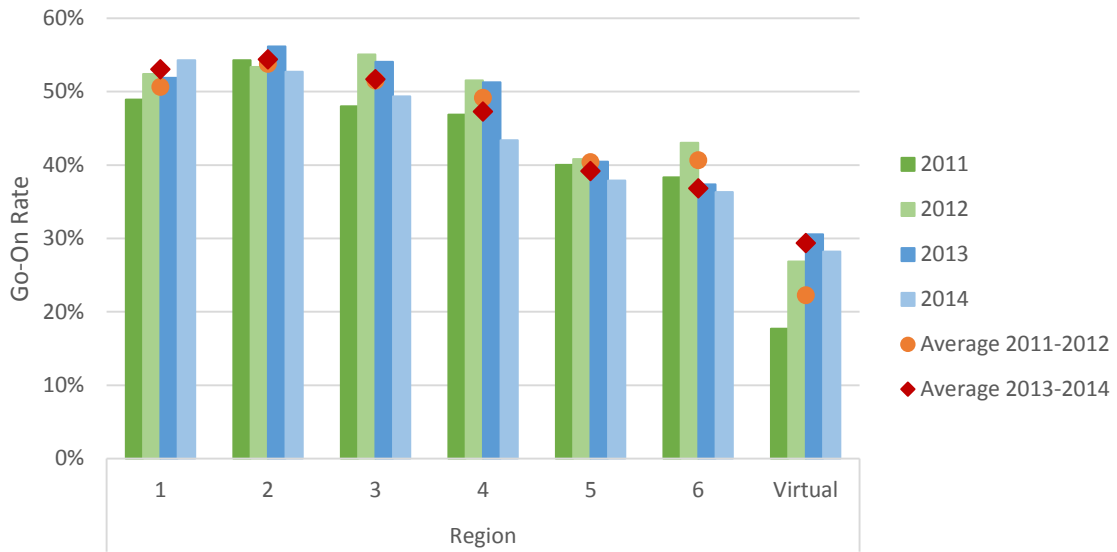
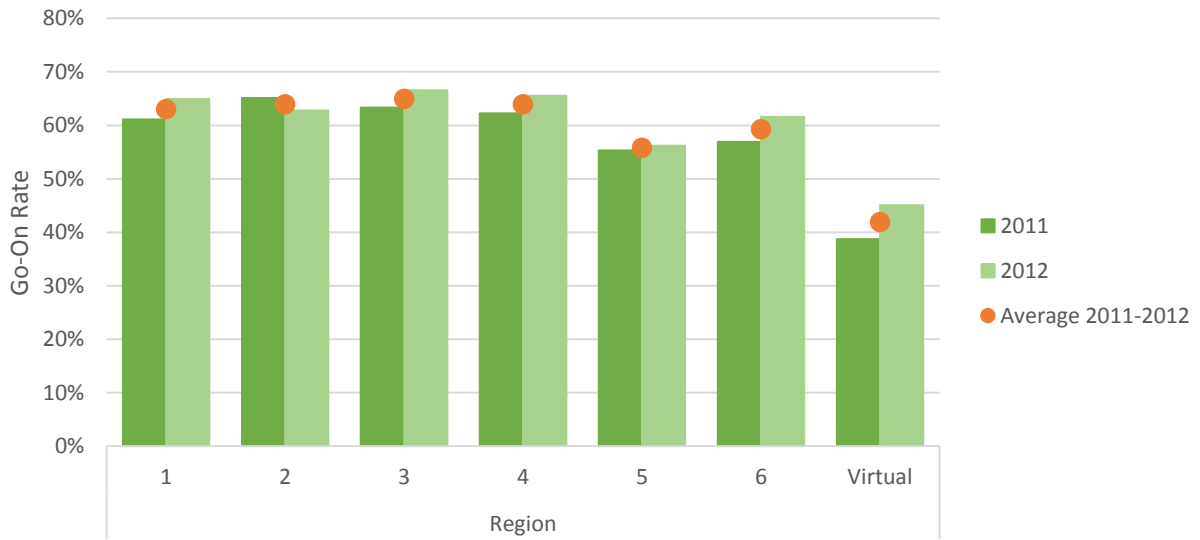


Figure 5: Idaho three-year Go-On rates for graduates from 2011 through 2012, by region



For the 2011-2012 cohorts, Region 1/2/3/4 had very similar average fall immediate go-on rates. Regions 5 and 6 lagged behind these other regions (see Figure 4). Figure 5 shows that, at the three-year point, Regions 1/2/3/4 still have the highest average go-on rates but that the gap between these regions and Regions 5 and 6 narrowed slightly. At the fall immediate point, the gap between the Regions 1/2/3/4 (averaged together) and Regions 5 and 6 were 11 and 10 percentage points, respectively. At the three-year point, the gap between Regions 1/2/3/4 (averaged together) and Regions 5 and 6 were 8 and 5 percentage points, respectively. In other words, students in Regions 5 and 6 were more likely to delay going on to college than students in Regions 1/2/3/4. Furthermore, even after 3 years, students in Regions 5 and 6 went on at lower rates than those in Regions 1/2/3/4.

For the 2013-2014 cohorts, Regions 1/2/3 still had very similar average fall immediate go-on rates. Region 4 had dropped slightly below these regions while Regions 5 and 6 still had much lower go-on rates than the rest of the regions.

Figures 6 and 7 show go-on rates at the fall immediate and three-year points broken down by both region and gender. As can be seen, a gender gap exists for every cohort and for every region. Males simply do not go-on at the same rate as females anywhere in Idaho.

Figure 6: Idaho fall immediate Go-On rates for graduates from 2011 through 2014, by region and gender

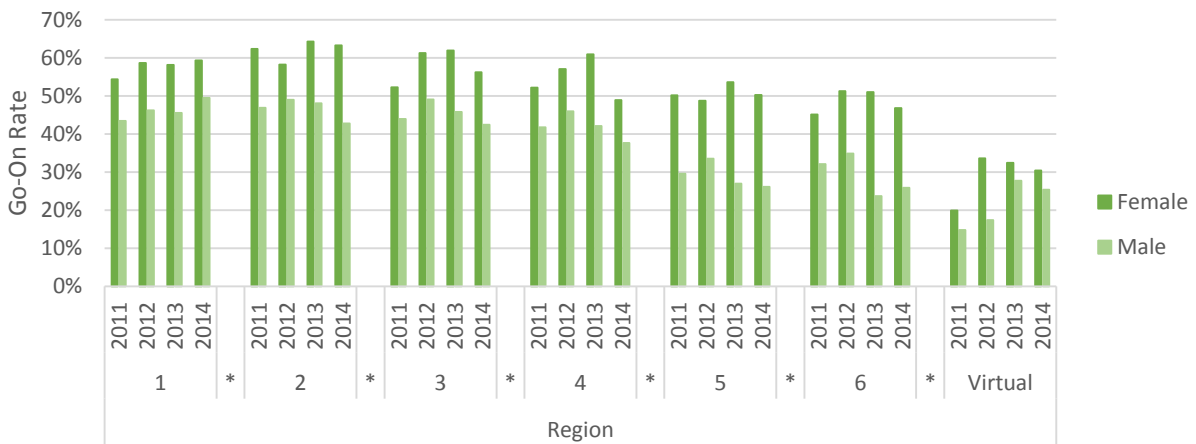
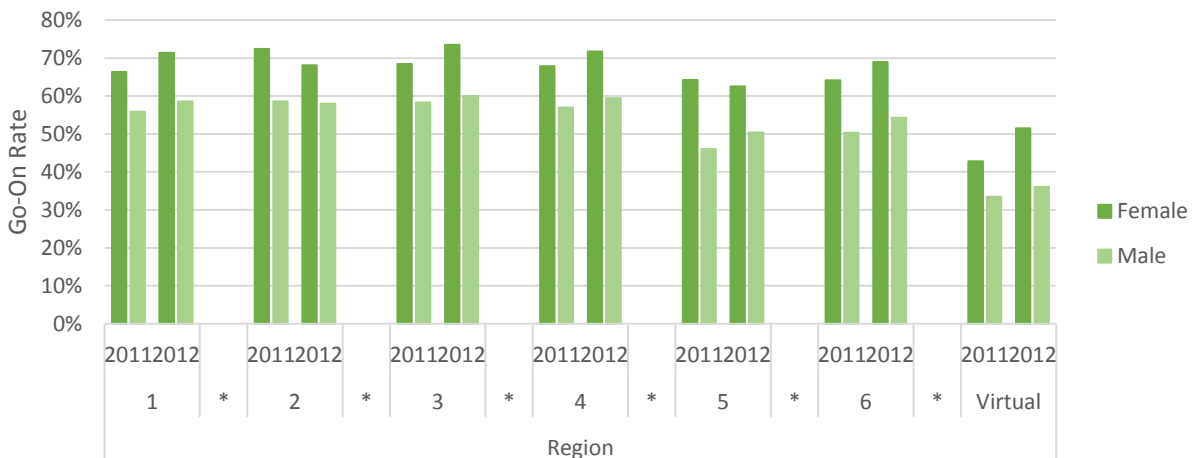


Figure 7: Idaho three-year Go-On rates for graduates from 2011 through 2012, by region and gender



There was a decrease in every region (except the virtual region) in the male fall-immediate go-on rate between 2012 and 2013. Regions 1 and 2 saw the smallest declines – 1 percentage point. Regions 5 and 6 saw the largest declines, a 7 and 11 percentage point decline, respectively. This is consistent with the hypothesis that the change in mission age *did* affect male go-on rates. It remains to be seen if this effect persists with the three-year rates. Three-year data for 2013 is not yet available so this analysis will be done at a later time.

Figure 7 shows that the gender gap persists in every region over time. Even at the three-year mark, males have not caught up to females in terms of going on to college. The three-year go-on rate for females exceeds 70 percent in at least one year for Regions 1/2/3/4. The three-year go-on rate for males does not exceed 60 percent in any region in any year.

To better understand the gender gap, Figures 8 and 9 graph the gender gap in go-on rates. Figure 8 shows the fall immediate gender gap for each region for each cohort. It allows one to see how the gender gap is changing over time for each region. Figure 9 shows the fall immediate and three-year gender gaps for the 2011 and 2012 cohorts. It allows one to see how the gender gap for a cohort changes as more time elapses from graduation.

Figure 8: Idaho’s gender gap in fall immediate Go-On rates from 2011 through 2014, by region

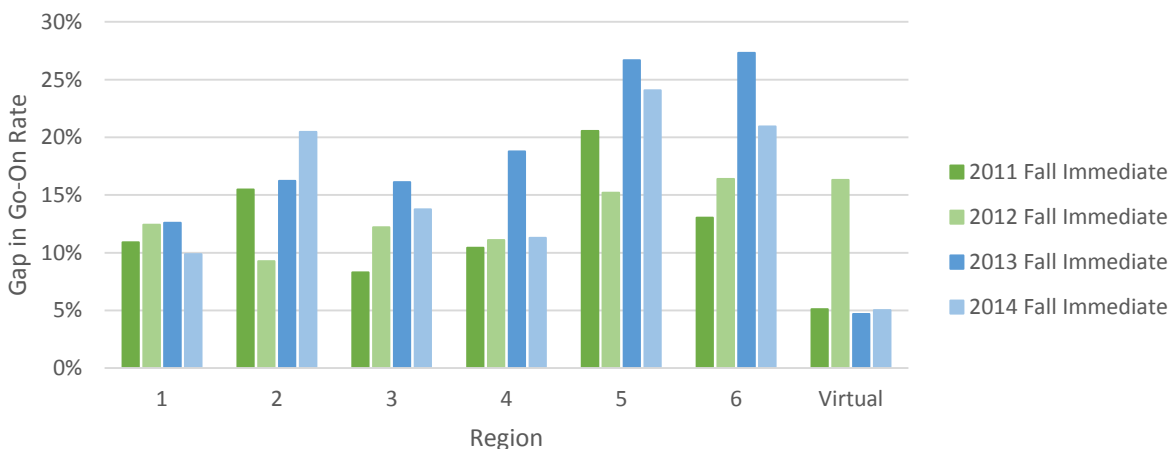


Figure 8 shows how volatile the gender gap has been over this time period for all regions except for Region 1. Region 1 has a gender gap which has hovered around 10 percentage points for all four cohorts. For the other physical regions, the gender gap in the fall immediate go-on rate increased sharply for the 2013 cohort. The gap can increase either if the male go-on rate decreases or if the female go-on rate increases or if both occur. In Region 2, the increase in the gap was due mainly to the 6 percentage point increase in the female go-on rate from 2012 to 2013. For Region 6, the increase in the gap was due mainly to the 11 percentage point decrease in the male go-on rate from 2012 to 2013. Both Region 4 and Region 5 had a combination of an increase in female go-on rates and a decrease in male go-on rates from 2012 to 2013. Region 3 had a small increase in female go-on rates and a decrease in male go-on rates in this time period. For most regions, the gap decreased between 2013 and 2014. The one exception was Region 2. The female go-on rate stayed steady but the male go-on rate dropped. In Region 1, the gap closed because the male go-on rate increased. In the other regions, the gap closed because the female go-on rate decreased.

Figure 9: Idaho's gender gap in fall immediate and three-year Go-On rates from 2011 through 2012, by region

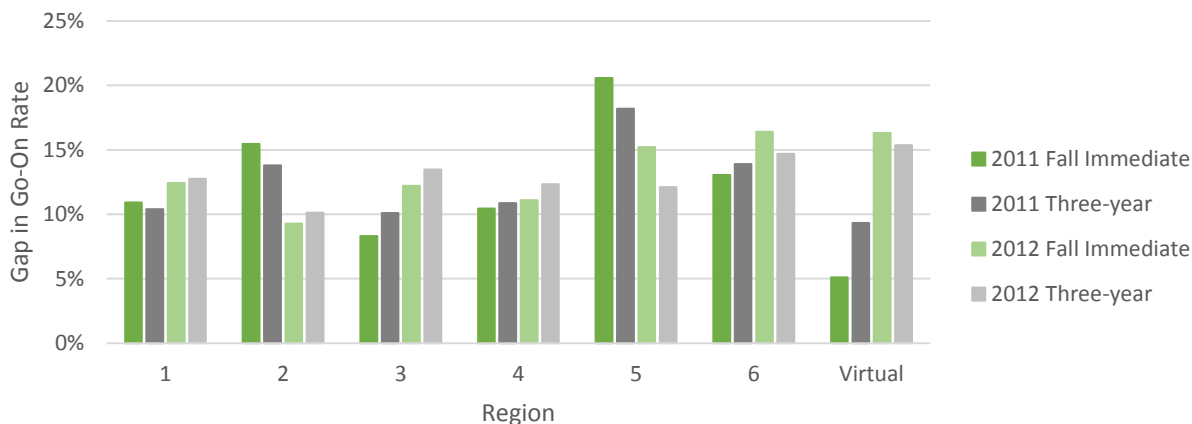


Figure 9 shows whether or not the gender gap seen in the fall immediate go-on rates closes as more time elapses. The green bars should be compared to the gray bars. The dark green bar shows the gap in the fall immediate go-on rate for the 2011 cohort. The dark gray bar shows the gap in the three-year go-on rate for the same cohort. The light green bar shows the gap in the fall immediate go-on rate for the 2012 cohort while the light gray bar shows the gap in the three-year rate for the same cohort.

In both Region 1 and Region 2, the gender gap decreased over time for the 2011 cohort but increased over time for the 2012 cohort. In other words, in these two regions, boys narrowed the gap between fall immediate and three-years in 2011 but not in 2012. In Regions 3 and 4, both cohorts saw the gap increase as time elapsed. Region 5 saw large decreases in the gap over time for both cohorts while Region 6 saw the gap increase slightly for the 2011 cohort but decrease for the 2012 cohort (opposite of what was seen in Regions 1 and 2). Region 5 is the only region in which there is consistent evidence that boys choose to go on later than girls. But, even in that region, the gender gap is larger than 10 percentage points for each cohort at the three-year point.

Thus far, this paper has documented the gender gap in go-on rates in Idaho. It has shown the gap exists for all cohorts that have go-on data. It has shown the gap exists across all regions in Idaho. It has shown the gap does not go away as more time elapses from graduation.

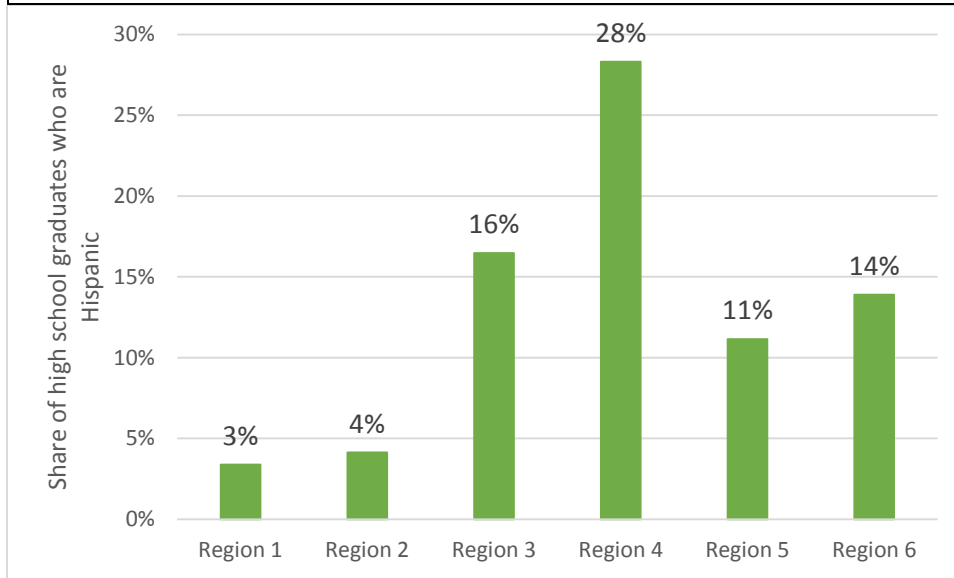
This paper did not seriously examine causes of this gap or reasons why the gap differs across regions. It did mention two factors (student ethnicity and population affected by LDS mission policy) that might affect the gender gap. Non-Hispanic students tend to have a larger gender gap in go-on rates than Hispanic students. The population affected by LDS mission policy might have a larger gender gap in the fall immediate go-on rate because men can leave for mission at age 18 while women cannot leave for mission until age 19. In 2014, there were 3 regions (Regions 2, 5, and 6) for which the fall immediate gender gap was larger than 20 percentage points. Regions 5 and 6 have large LDS populations but Region 2 does not. Region 2 is mostly non-Hispanic but so is Region 1 and Region 1's gender gap was half that of Region 2. Obviously, these two factors are not sufficient to explain the gender gap.

Other factors that might contribute to the gender gap are military service and employment opportunities. Males may be more likely to substitute military experience for postsecondary schooling.

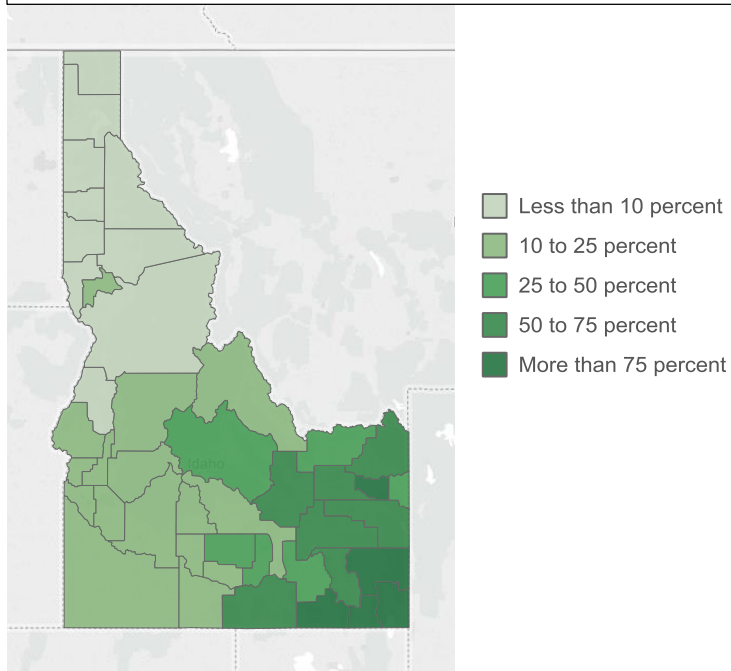


Males may also have more jobs available to them without a postsecondary credential. Future research will examine these and other possible causes. Understanding the causes of the gender gap will allow the State Board to craft policies to help mitigate it. This paper took the first step by demonstrating that the gender gap in go-on rates is real and persistent across all of Idaho.

**Appendix Figure 1: Ethnicity of 2014 Idaho graduates, by region**



**Appendix Figure 2: Share of county population identified as belonging to the Church of Jesus Christ of Latter Day Saints**



Source: Association of Religion Data Archives, [www.TheARDA.com](http://www.TheARDA.com)