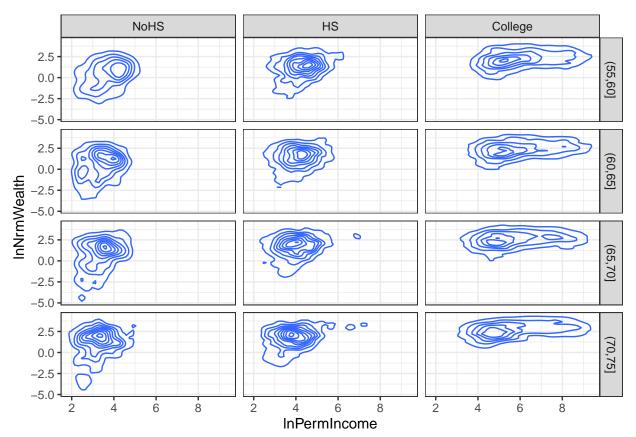
Distribution of Income, Wealth, and Mortgage during Retirement in SCF

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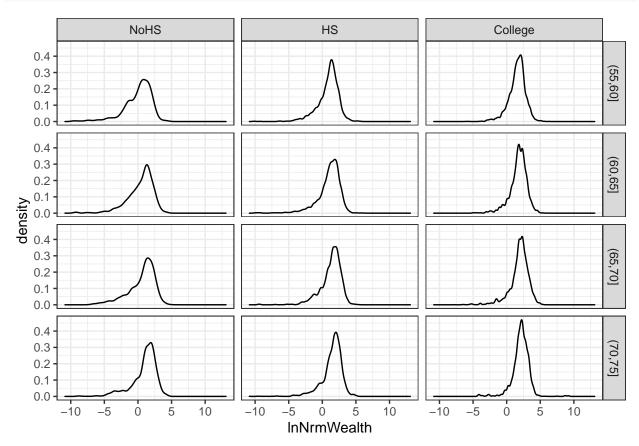
Joint Density of log Permanent Income and log Normalized Wealth

```
p <- ggplot(
   SCF %>%
     filter(agecl %in% seq(9, 12)),
   aes(x = lnPermIncome, y = lnNrmWealth)
) +
   geom_density_2d() +
   facet_grid(Age_grp ~ Educ) +
   theme_bw()
print(p)
```



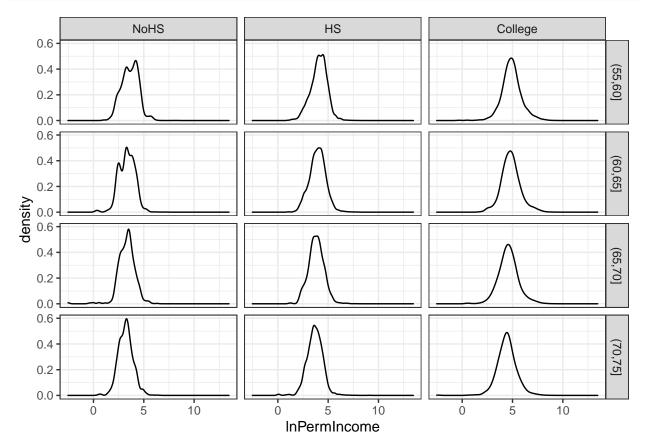
Distribution of log Normalized Wealth

```
p <- ggplot(
   SCF %>%
    filter(agecl %in% seq(9, 12)),
   aes(x = lnNrmWealth, weight = wgt)
) +
   geom_density() +
   facet_grid(Age_grp ~ Educ) +
   theme_bw()
print(p)
```



Distribution of log Permanent Income

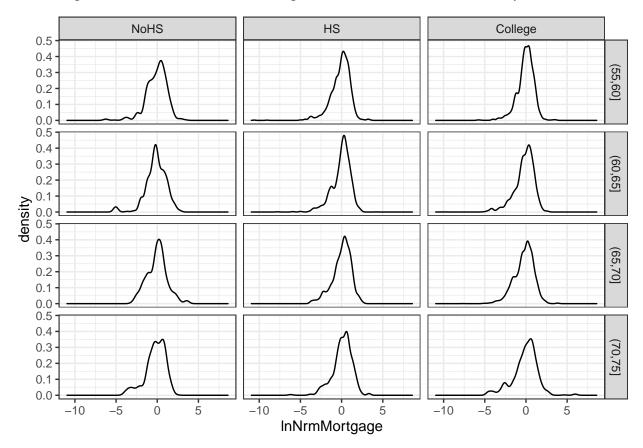
```
p <- ggplot(
   SCF %>%
    filter(agecl %in% seq(9, 12)),
   aes(x = lnPermIncome, weight = wgt)
) +
   geom_density() +
   facet_grid(Age_grp ~ Educ) +
   theme_bw()
print(p)
```



Distribution of log Normalized Mortgage

```
p <- ggplot(
   SCF %>%
     filter(agecl %in% seq(9, 12)),
   aes(x = lnNrmMortgage, weight = wgt)
) +
   geom_density() +
   facet_grid(Age_grp ~ Educ) +
   theme_bw()
print(p)
```

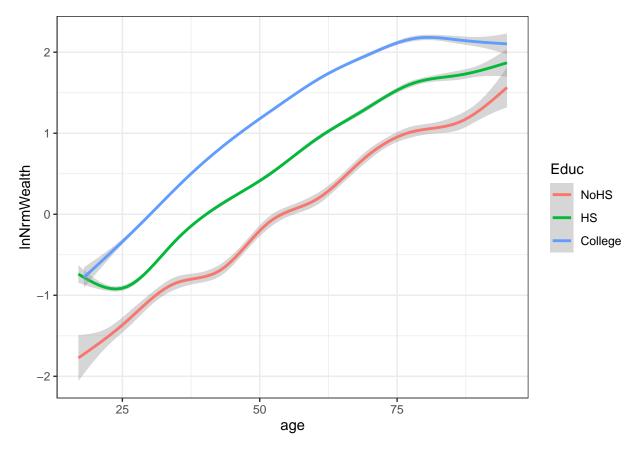
Warning: Removed 40559 rows containing non-finite values (stat_density).



Mean log Normalized Wealth by age and education

```
p <- ggplot(
   SCF,
   aes(y = lnNrmWealth, x = age, weight = wgt, group = Educ, color = Educ)
) +
   geom_smooth() +
  theme_bw()
print(p)</pre>
```

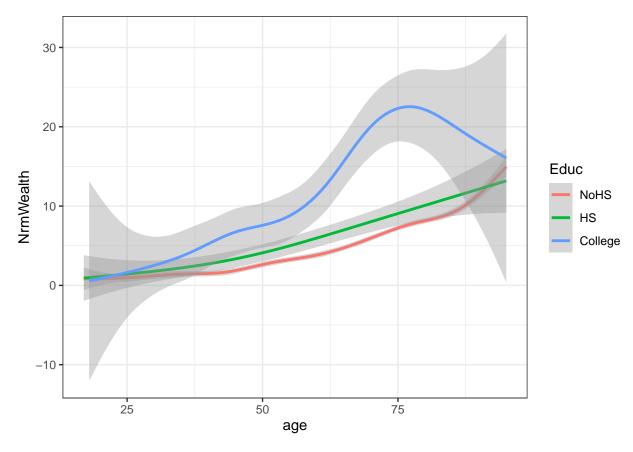
$geom_smooth()$ using method = gam' and formula $y \sim s(x, bs = cs')'$



Mean Normalized Wealth by age and education

```
p <- ggplot(
   SCF,
   aes(y = NrmWealth, x = age, weight = wgt, group = Educ, color = Educ)
) +
   geom_smooth() +
   theme_bw()
print(p)</pre>
```

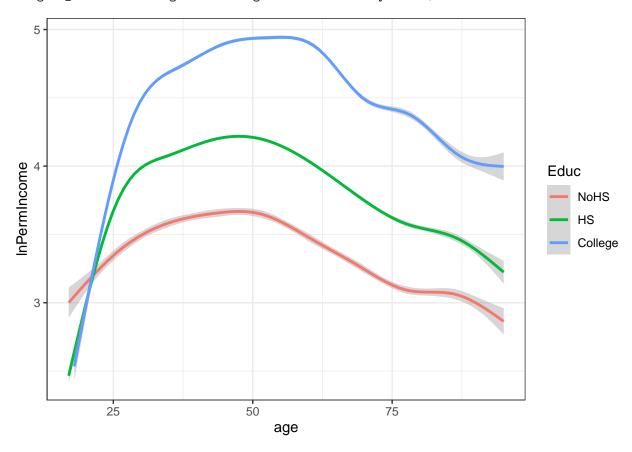
$geom_smooth()$ using method = 'gam' and formula 'y ~ s(x, bs = "cs")'



Mean log Permanent Income by age and education

```
p <- ggplot(
   SCF,
   aes(y = lnPermIncome, x = age, weight = wgt, group = Educ, color = Educ)
) +
   geom_smooth() +
   theme_bw()
print(p)</pre>
```

$geom_smooth()$ using method = 'gam' and formula 'y ~ s(x, bs = "cs")'

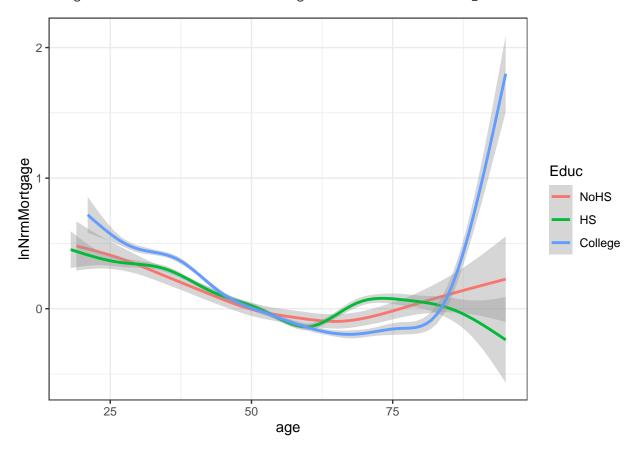


Mean log Normalized Mortgage by age and education

```
p <- ggplot(
   SCF,
   aes(y = lnNrmMortgage, x = age, weight = wgt, group = Educ, color = Educ)
) +
   geom_smooth() +
   theme_bw()
print(p)</pre>
```

$geom_smooth()$ using method = 'gam' and formula 'y ~ s(x, bs = "cs")'

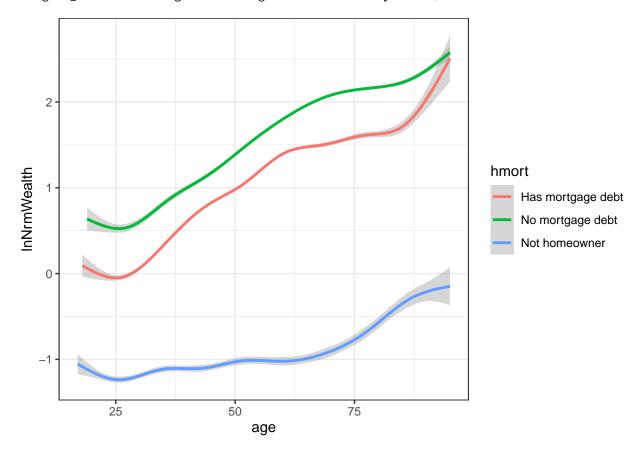
Warning: Removed 111517 rows containing non-finite values (stat_smooth).



Mean log Normalized Wealth by age and homeownership class

```
p <- ggplot(
   SCF,
   aes(y = lnNrmWealth, x = age, weight = wgt, group = hmort, color = hmort)
) +
   geom_smooth() +
   theme_bw()
print(p)</pre>
```

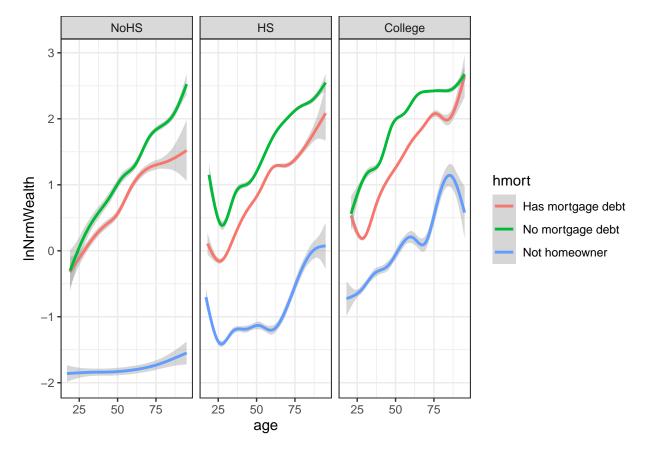
$geom_smooth()$ using method = gam' and formula $y \sim s(x, bs = cs')'$



Mean log Normalized Wealth by age, homeownership class, and education

```
p <- ggplot(
   SCF,
   aes(y = lnNrmWealth, x = age, weight = wgt, group = hmort, color = hmort)
) +
   geom_smooth() +
   facet_wrap(~Educ) +
   theme_bw()
print(p)</pre>
```

$geom_smooth()$ using method = 'gam' and formula 'y ~ s(x, bs = "cs")'



Mean log Permanent Income by age, homeownership class, and education

```
p <- ggplot(
   SCF,
   aes(y = lnPermIncome, x = age, weight = wgt, group = hmort, color = hmort)
) +
   geom_smooth() +
   facet_wrap(~Educ) +
   theme_bw()
print(p)</pre>
```

$geom_smooth()$ using method = gam' and formula $y \sim s(x, bs = "cs")'$

