Fast of the Firstborn

What is the Fast of the Firstborn
(תענית בכורים, Ta’anit B’chorim)?

-Torah:
And it came to pass at midnight, that God smote all the firstborn in the
land of Egypt, from the first-born of Pharaoh that sat on his throne to the
first-born of the captive that was in the dungeon; and all the first-born of
cattle. (Exodus 12:29)
except the Jews:
[...God] passed over the houses of the children of Israel in Egypt, when
He smote the Egyptians... (Exodus 12:27)
-To thank God for being spared, every firstborn must fast the day
before the first day of Pessah
- Begins 14 Nisan at dawn
- Ends 14 Nisan at dusk, before first Seder
- 12 Nisan when Pessah begins on a Sunday

Is it a legal requirement?
-No. Custom, not law. First references are in Talmud:
- Firstborns fast "in commemoration of the miracle that they were saved
  from the Plague of the Firstborn." (Soferim 21:3)
- Rabbi would eat neither leaven nor matzah [on the day before
  Passover]... because he was a firstborn. (Jerusalem Talmud, Pesachim 68a)
- Custom not universal. Sometimes done to save appetite for matzah.
Talmud continues:
Rabbi Muna countered: Rabbi Yonah was a firstborn, yet he would eat!
Rabbi Tanchuma said: [Rabbi would avoid eating because] he had a
sensitive constitution [and needed to keep his appetite for the upcoming
matzah at the Pessah Seder]." (Jerusalem Talmud, Pesachim 68a)
-Sages: A firstborn who is satisfied with little food should eat no more
than the minimum for a Shabbat meal (slightly more than a ke-beitzah
[“like an egg”, such as 2 ounces of bread], to leave enough appetite
for the matzah later on (Mishna Berurah 470.1).
Who should fast?

-Only the firstborn. (Only fast that does not apply to everybody.)
-Men only or both men and women?
  -Torah says even firstborn cattle were slain, so fast should apply to everybody. Midrash specifically says that firstborn Egyptian women died: Even girls who were firstborn, died; with the exception of Bithiah the daughter of Pharaoh, who had a good intercessor, Moses. (Ex. Rabbah 18:3)
  -However, some say only men fast (Rema, Vilna Gaon). Reason: Torah connects the Redemption of the Firstborn males to the salvation of Jewish firstborns in Egypt (Exodus 13:12-15), and so fasting only applies to males.
-Common practice: Only males fast.

Who is a Firstborn?

-Firstborn of father OR mother fasts (Shulchan Aruch 470,1).
-If firstborn dead (even as a miscarriage), his next sibling does not have to fast (Tur quoted in Mishna Berurah 470,2).
-If firstborn born by Caesarean (not “fruit of the womb”), some say he should fast (Chok Yaakov 470,2), others not (Chaf HaChayyim 470,3).

Are there alternatives to fasting?

-Yes. Firstborn are free from obligation to fast if they attend a siyyum (“meal of completion” of studying a Talmudic tractate),
  -Even if they personally did not study the material, since they are joining the celebration of someone who did (Mishna Berurah 470,10).
  -Even if what was studied was not the Talmud but a book of the Tanach learned with a major accepted commentary, and one should try not to learn the material quickly just to make a siyyum. (Moshe Feinstein, Igrot Moshe 1,157).
-Aruch HaShulchan: Joining a siyyum has become so common that almost no firstborns fast nowadays.

-If a firstborn does not attend a siyyum, he must fast, unless doing so will tire him out so much that he will not be able to fully participate in the seder.

Conclusion

The Sages seem eager and willing to bypass the custom, but cannot simply disregard it.